

PARTS CATALOG

FOR

VICTOR
Custom

PRINTING CALCULATOR



VICTOR

VICTOR COMPTOMETER CORPORATION
BUSINESS MACHINES GROUP CHICAGO, ILLINOIS 60618
IN CANADA: VICTOR COMPTOMETER LIMITED • GALT, ONTARIO

CUSTOM LINE
PRINTING CALCULATOR



SECTION I
INTRODUCTION

1. This Parts Catalog covers the Custom Line Printing Calculators. The effective date of the information given is indicated by the date shown at the bottom of each page.

2. This Parts Catalog consists of three Sections, as follows:

a. Section I is the Introduction. It contains a description, and instructions for use of the remainder of the Catalog.

b. Section II is the Group Assembly Parts List. It contains illustrations of all parts used in the machines and a listing of parts and assemblies. These listings are complete except that all individual parts have not been listed or called out in assemblies that contain no replaceable parts.

(1) The illustrations are of the "exploded" type. That is, each part is moved away from the machine and associated parts, so that it can be clearly seen - yet, it is maintained in the same relative relationship to the machine and associated parts as it has in its assembled state. "Call out" numbers are included in these illustrations to identify the individual parts.

(2) An asterisk (*) following the part number indicates that the corresponding part or assembly is not individually replaceable in that location. If such a part or assembly is required for service, it should be ordered as a part of the next larger assembly that is replaceable. A letter (A, B, C, etc.) following the "call out" number indicates the part is not interchangeable with prior parts or a different part is used on the various models. The explanation is listed at the bottom of the page.

c. Section III is the Numerical Parts Index. It contains the part number and cross reference to the Group Assembly Parts Lists.

(1) The first column contains the part numbers. They are arranged in numerical sequence.

(2) The second column contains the Figure and Index Number that serves to identify the line in the Group Assembly Parts Lists on which this item appears, and the illustration in which it is called out.

USES

1. How to find a part or assembly number. If the appearance of the part or assembly - or its general location in the machine - is known, simply turn to the page where that item is illustrated and complete data, including part number, will be on the facing page, listed on the line opposite the call out number shown on the illustration.

2. How to identify the part or assembly when the number is known. Refer to the Numerical Parts Index in Section III of this catalog to obtain the figure and index number. Then turn to the illustration and Group Assembly Listing identified by that figure and index number.

3. How to find what parts are included in an assembly, or what assembly a part belongs to. If the assembly or part number is known, this data will be found as in "2" above. If the number is not known, but its general location in the machine is known, or its name, or its general appearance, it can be located by referring to the illustrations and/or parts listing.

4. Model 75-85-54 is used as the model for the illustrations in the Group Assembly Parts List.

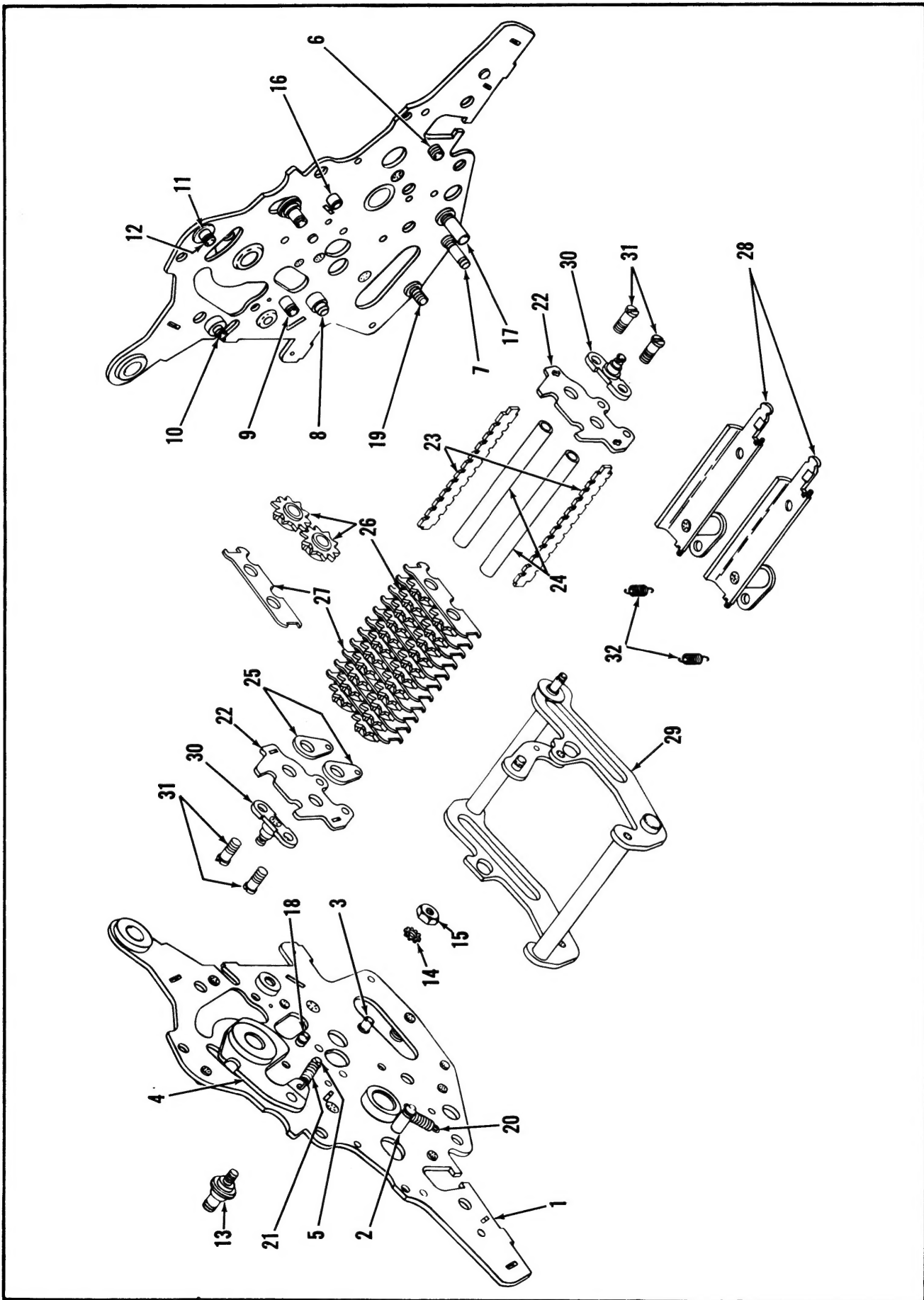


FIGURE 1

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
1		Custom Printing Calculators								1
1	1-13500	Center Section Unit								1
1 A	1-13543	Frame Assembly - Accumulator (Left)								1
1- 1	9497 *	Frame - Accumulator								1
1- 2	7985	Stud - Spring								1
1- 3	8810 *	Stud - Shoulder								1
1- 4	5584 *	Crank - Rectifier								1
1- 5	293	Stud - Spring								1
1- 6	7989	Stud - Keeper (Signal Crank Pivot)								1
1- 7	7992	Stud - Shoulder Spring								1
1- 8	7986 *	Stud - Shoulder (Crank Assembly Pivot)								1
1- 9	7990	Stud - Keeper (Accumulator Detent Pivot)								1
1-10	7980	Stud - Shoulder Keeper (Control Link Assembly)								1
1-11	2362 1/2	Spacer - Flat (.020")								1
1-12	8222	Stud - Keeper (Rectifier Pivot)								1
1-13	8621	Stud - Shoulder Keeper								1
1-14	4227	Washer - External Tooth Lock								1
1-15	4209	Nut - Hex (.250")								1
1-16	7987	Stud - (Subtract Control Crank Pivot)								1
1-17	12304 *	Stud - Shoulder Keeper								1
1-18	7993	Stud - Spring								1
1-19	13184	Stud - Spring Shoulder Keeper								1
1-20	7063	Spring (.281", .011" Wire)								1
1-21	M-289	Spring (.406", .012" Wire)								1
1 B	1-13139-1	Accumulator Assembly Complete								1
1-22	7472	Plate - Accumulator Wheel Support								2
1-23	8019	Comb - Accumulator Wheel Separator								2
1-24	8020	Shaft - Accumulator Wheel								2
1-25	13199	Retainer - Spring								2
1-26	1-7378	Wheel Assembly Accumulator								22
1-27	7382	Separator - Accumulator Wheel								11
1-28 C	1-13200	Detent - Accumulator Wheel								2
1-29 B	1-25011	Arm Assembly - Accumulator								1
1-30	1-7380	Plate Assembly - Accumulator Wheel Guide								2
1-31	7376	Screw - Flat Head (.270")								4
1-32	5043	Spring (.218", .010" Wire)								2
<p>A - Frame #1-13543 is used on machines above serial #1824-096, or machines using #1-13506 Zero Eliminator Comb and #13000 series zero eliminator parts. Frame #1-13369 is used on machines between serial #1301-619 and #1824-096, or machines using #1-8031 Zero Eliminator Unit, #1-7723 & #1-7724 Adding Sectors. Frame #1-12934 is used on machines between these two serial numbers using #1-6457 & #1-6458 Adding Sectors. Frame #1-12523 is used on Multiplier Models below serial #1301-619.</p> <p>B - For machines below serial #2419-781, order #1-13139 Accumulator Assembly complete, or #1-8807 Accumulator Arms Assembly.</p> <p>C - For machines using #8021 Accumulator Wheel Detents, order two #1-13200 Accumulator Wheel Detents, two #13199 Spring Retainers, and two #5043 Springs when replacement of detent is required.</p>										
* This part, or assembly, is not individually replaceable in this location. Order the next higher assembly that is replaceable.										

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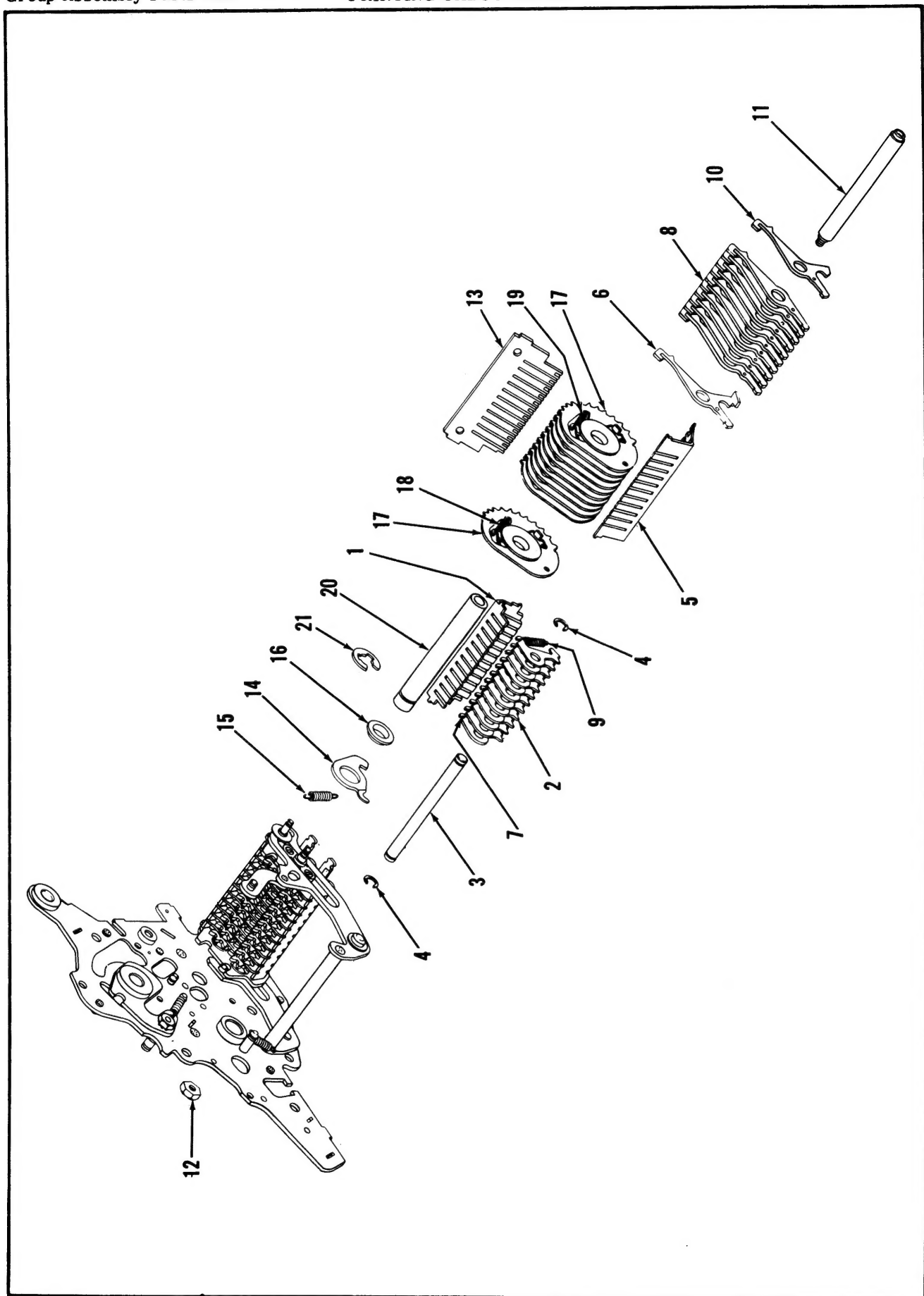


FIGURE 2

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
2- 1	8015									1
2- 2	4628									12
2- 3	7893									1
2- 4	7894									2
2- 5	8014									1
2- 6	7423									1
2- 7	5839									1
2- 8	4627									10
2- 9	F-781 $\frac{1}{2}$									10
2-10	7424									1
2- 9	F-781 $\frac{1}{2}$									1
2-11	8123									1
2-12	S-877 $\frac{1}{2}$									1
2-13	8016									1
2-14	7689									1
2-15	4231									1
2-16	7688									1
2 A	1-7723									1
2-17	1-7721									1
2-18	6454									1
2 A	1-7724									10
2-17	1-7721									10
2-19	6459									10
2-20	9211									1
2-21	7691									1
<p>A - #1-7723 Adding Sector (Last Bank) and #1-7724 Adding Sectors are not individually interchangeable with the previous sectors #1-6457 (Last Bank) and #1-6458. The new style Sectors must be assembled as a complete set of eleven when replacing old style Sectors. Also, the #3919 Lask Bank Rack Guide Stud must be removed from the Left Accumulator Frame Assembly or the applicable Frame assembled. (See Note "A" in Figure 1). Adding Sectors #1-6457 & #1-6458 are no longer available.</p>										

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Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
3 A	1-13506								Comb Assembly - Zero Eliminator	1
3- 1 A	13503								Arm - Zero Eliminator Comb (Left)	1
3- 2 A	13505								Comb - Zero Eliminator (Rear)	1
3- 3 A	13504								Arm - Zero Eliminator Comb (Right)	1
3- 4	5040								Zero Eliminator (Extra Bank)	1
3- 5	5039								Zero Eliminator (3rd to 10th Bank)	8
3- 6	5043								Spring (.218", .010" Wire)	9
3- 7 A	13528								Shaft - Zero Eliminator	1
3- 8	7019								Keeper - Spring (.187")	2
3- 9	8011								Comb - Zero Eliminator (Front)	1
3-10	1-12533								Rack Assembly - Adding	11
3-11	12253								Stud - Rack	11
3-12	8012								Comb - Rack	2
3-13 B	9346								Roller - Rack Guide	2
3-14 C	1-13588								Shaft Assembly - Signal Arm	1
3-15	1-8057								Plate Assembly - Carrier Restore Shaft	1
3-16	6932								Link - Carrier Restore	1
3-17	7883								Rivet - Shoulder	1
3-18	1-8067								Comb Assembly - Type	1
3-19	9347								Bearing - Rack Roller Guide	4
3-20	7020								Keeper - Spring (.250")	2
<p>A - All Zero Eliminator parts marked "A" are used on machines above serial #1824-096 and are not interchangeable with prior parts contained in Zero Eliminator Unit #1-8031 (Illustrated at left)</p> <p>B - Rack Guide Roller #8069 is used in machines below serial #2087-050, or machines that do not use Rack Guide Roller Bearing #9347. To replace Rack Guide Roller #8069, order Rack Guide Roller #9346 and two Rack Guide Roller Bearings #9347.</p> <p>C - Signal Arm Shaft 1-13588 is used in machines above serial #2148-792, or machines using 1-13590 Intermediate Lever. Signal Arm Shaft 1-8668 was used on machines below this serial number, or machines using #1-13513 Intermediate Lever; and is not available. Order #1-13588 Signal Arm Shaft and #1-13590 Intermediate Lever, if #1-8668 requires replacement. (See illustration in box)</p>										

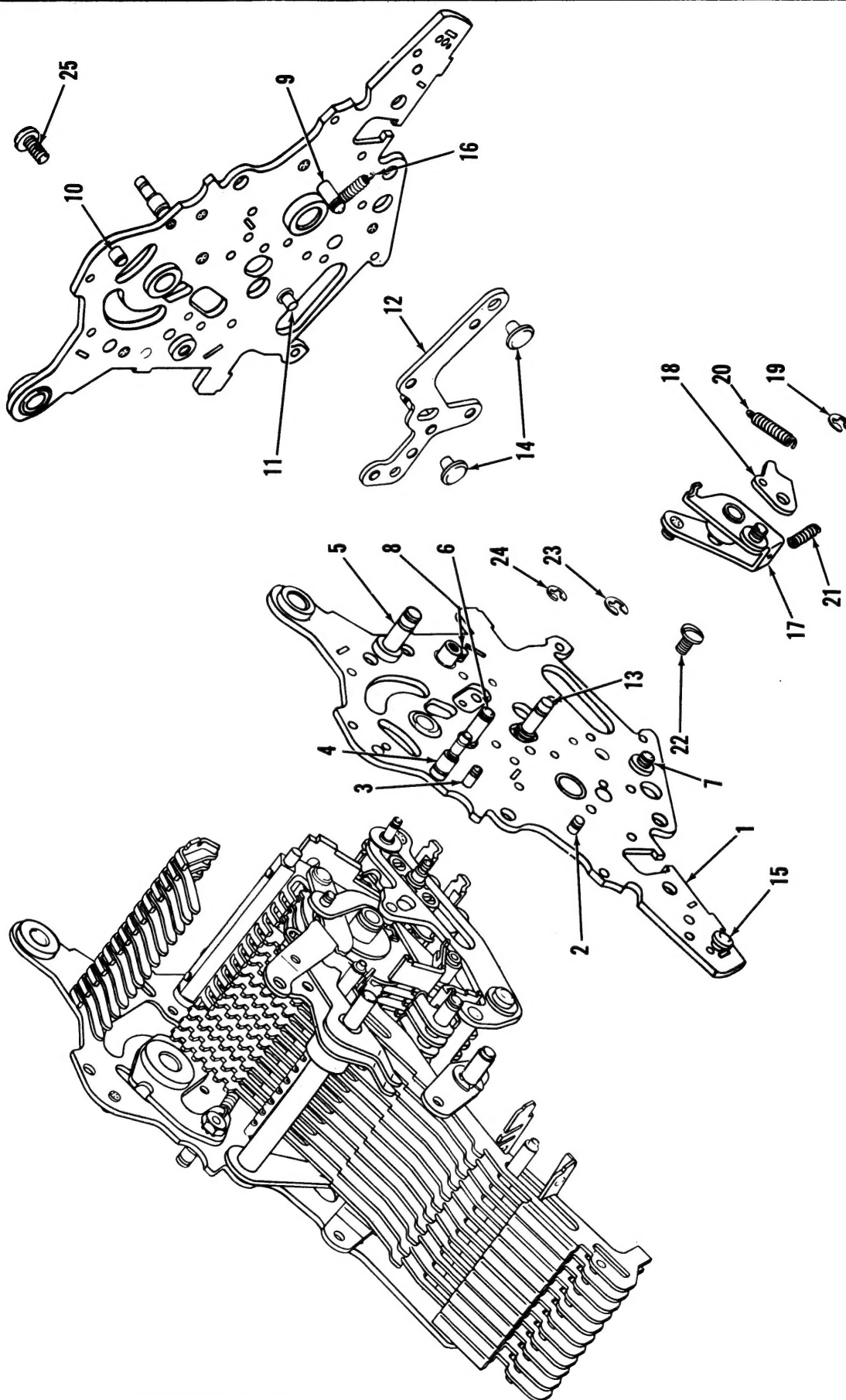


FIGURE 4

Section II
Group Assembly Parts List

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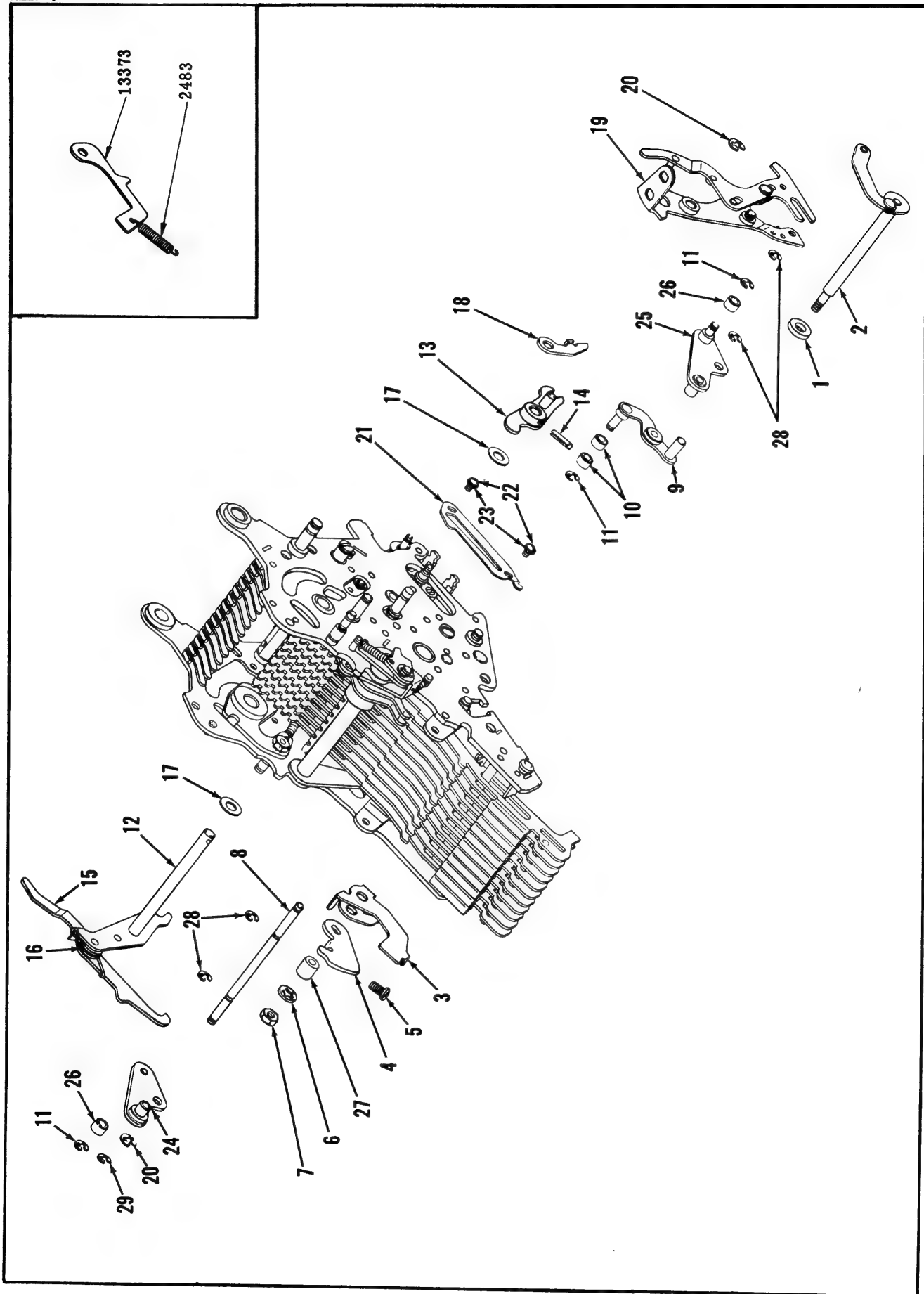


FIGURE 5

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
5- 1	1416 $\frac{1}{4}$								Spacer - Flat (.083")	1
5- 2 A	1-13523								Shaft Assembly - Total Lock (1-8065)	1
5- 3 A	13530								Arm - Rack Stop Plate Raising (See Note)	1
5	1-6988								Arm Assembly - Total Lock	1
5- 4	5939								Arm - Total Lock	1
5- 5	9829								Screw - Fillister Head (.343")	1
5- 6	1498 $\frac{1}{2}$								Washer - Internal Tooth Lock	1
5- 7	2101 $\frac{1}{4}$								Nut - Hex (.250")	1
5- 8 A	13529								Shaft - Zero Eliminator Pivot (8121)	1
5- 9	1-13590								Lever Assembly - Intermediate (1-8454)	1
5-10	3813								Roller (.218")	2
5-10	3108								Roller (.1875")	AR
5-10	8609								Roller (.203")	AR
5-10	3883								Roller (.229")	AR
5-10	3885								Roller (.250")	AR
5-10	3786								Roller (.270")	AR
5-11	7017								Keeper - Spring (.125")	3
5	1-8510								Arm and Shaft Assembly Complete-Accumulator	1
5-12	1-25185 *								Arm and Shaft Assembly - Accumulator	1
5-13	1-5941 *								Arm Assembly - Accumulator (Right)	1
5-14	4213								Roll Pin (5/64" x 3/8")	1
5-15	8509 *								Link - Accumulator	1
5-16	25184								Spring - Torsion	1
5-17	7690								Spacer - Flat (.005")	2
5-18	7645								Lever - Accumulator Arm Intermediate	1
5-19 A	1-13518								Lever Assembly Complete - Total Control (1-7648)	1
5-20	7018								Keeper - Spring (.156")	2
5-21	9344								Block - Accumulator Detent	1
5-22	F-769 $\frac{1}{2}$								Screw - Round Head (.125")	2
5-23	7463								Washer - Internal Tooth Lock	2
5-24 A	1-13516								Arm Assembly - Left Zero Eliminator (1-8026)	1
5-25 A	1-13525								Arm Assembly - Right Zero Eliminator (1-8028)	1
5-26	3813								Roller (.218")	2
5-27	13531								Spacer - Tubular (.250")	1
5-28	7017								Keeper - Spring (.125")	4
5-29	7621								Keeper - Spring	1
<p>A - All parts listed are used on machines above serial #1824-096 or machines using #13000 series Zero Eliminator Part Numbers. Part numbers listed in brackets are used on machines below this serial number or machines using #1-8031 Zero Eliminator Unit illustrated in Figure 3.</p> <p>Rack stop plate rising arm #13530 replaced #5938 and rack stop raise lever #13373 (illustrated at left) at serial #1824-096. Rack raise lever #13373 replaced #12827 at serial #1687-709 and is used with calculating cam shaft #1-13376. Rack raise lever #12827 is used between serial #1124-396 and #1687-709. Rack stop raise lever #12058 is used below serial #1124-396.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

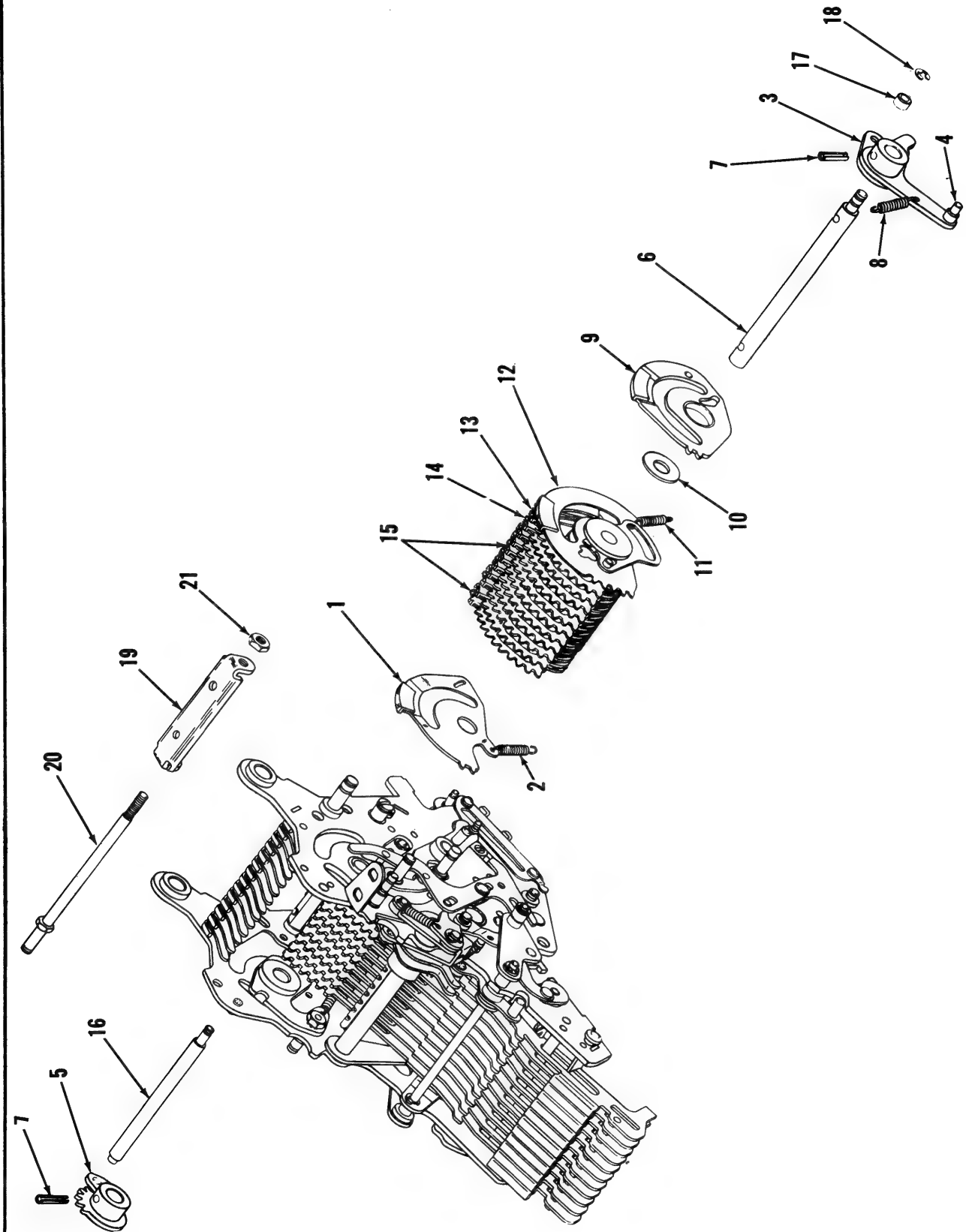


FIGURE 6

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
6- 1 A	1-9735								Type Sector Assembly - Multiplication & Division	1
6- 2	6733								Spring (.375" .011" Wire)	1
6- B	1-17020								Shaft Assembly - Type Sector	1
6- 3	1-17019 *								Lock Assembly - Accumulator Arms (Upper)	1
6- 4	3814								Stud - Shoulder (Lock Roller)	1
6- 5	1-4066 *								Sector Assembly - Rack Restore	1
6- 6	8862 *								Shaft - Type Sector	1
6- 7	4211								Roll Pin (3/32" x 1/2")	2
6- 8	7972								Spring (.374", .022" Wire)	1
6- 9 A	1-9745								Type Sector Assembly Complete - Credit Balance Signal	1
6-10	7410								Spacer - Flat (.025" - Type Sector)	1
6-11	5511								Spring (.203", .007" Wire)	1
6-12 A	1-9715								Type Sector Assembly Complete - Signal (Non-Add. Sub-Total, Total)	1
6-13 A	1-9625								Type Sector Assembly Complete (Numerical Type)	8
6-14 A	1-9655								Type Sector Assembly Complete (Numerical Type With Period)	1
6-15 A	1-9675								Type Sector Assembly Complete (Numerical Type With Comma)	2
6-16	8122								Shaft - Rack Restore	1
6-17	3813								Roller (.218")	1
6-18	12575								Keeper - Spring (.125")	1
6-19	8010								Tie - Center Section Frame	1
6-20	12612								Stud - Screw (Center Section Frame Tie)	1
6-21	4798								Nut - Hex (.281")	1
<p>A - For machines below serial #2020-241 order the following Type Sectors: #1-12936 Multiply and Divide #1-7355 Credit Balance Signal #1-8119 Total, Sub-Total, Non-Add Signal #1-5550 Numerical #1-5553 Numerical-Period #1-5555 Numerical-Comma For Multiplier Model below serial #1301-619, order #1-12421 Multiplication Type Sector.</p> <p>B - For machines below serial #2419-781, order #1-8865 Type Sector Shaft Assembly.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest Assembly that is replaceable.</p>										

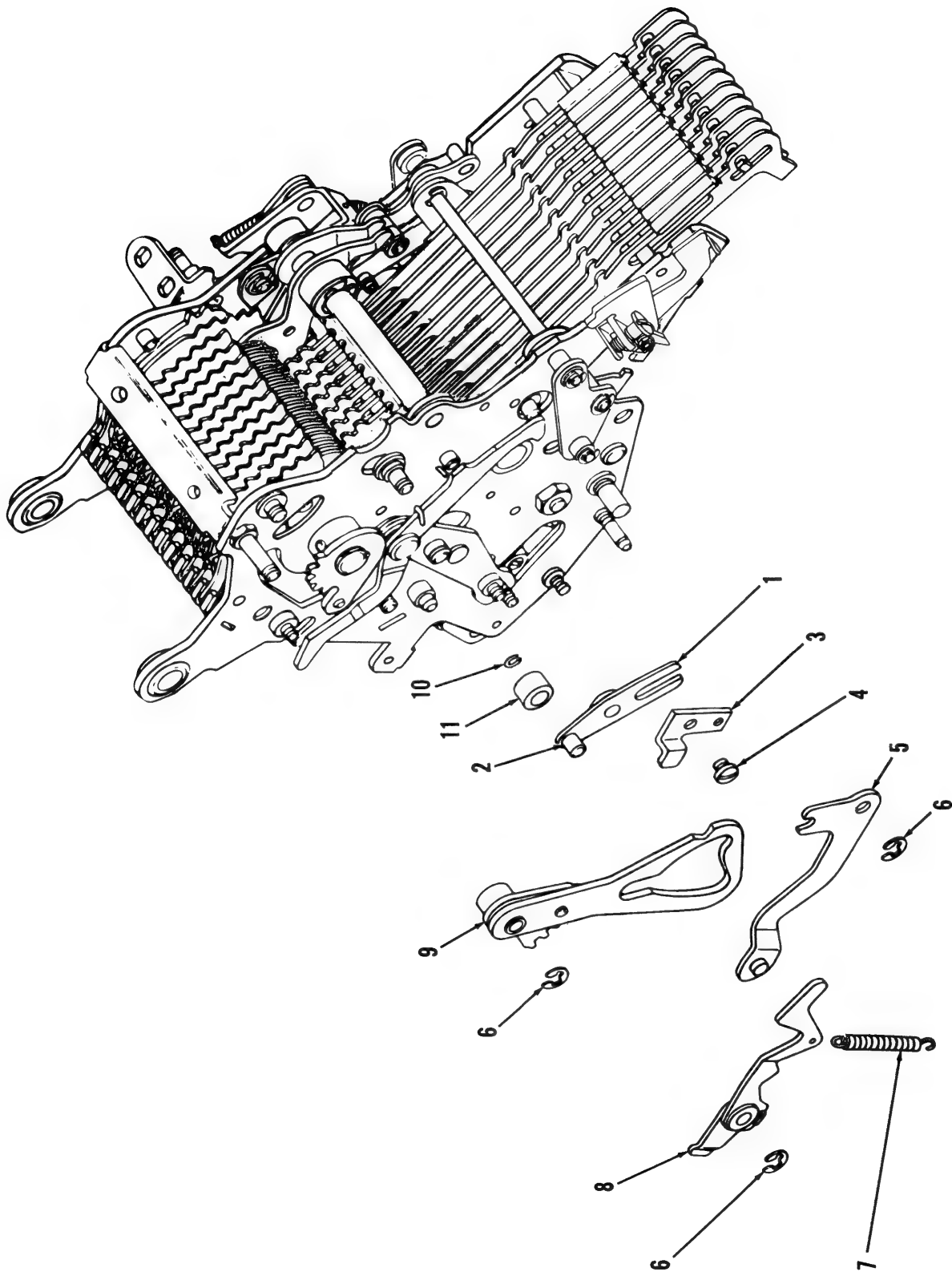


FIGURE 7

CUSTOM LINE
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Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
7- 1	1-7433								Crank Assembly - Subtract Control	1
7- 2	3609								Stud	1
7- 3	5011								Retainer - Control Crank	1
7- 4	3781								Screw - Binding Head (.115")	1
7- 5	1-4805								Crank Assembly - Signal	1
7- 6	7018								Keeper - Spring (.156")	3
7- 7	3376								Spring (1", .016" Wire)	1
7- 8	1-5946								Detent Assembly - Accumulator	1
7- 9	1-7150								Cam and Sector Assembly - Rack	1
7-10	5527								Spring - Retainer	1
7-11	5525								Roller - Counterbore (.344") (Adjustment Rollers #5524 (.358") #5526 (.328") and #5996 (.373"))	1

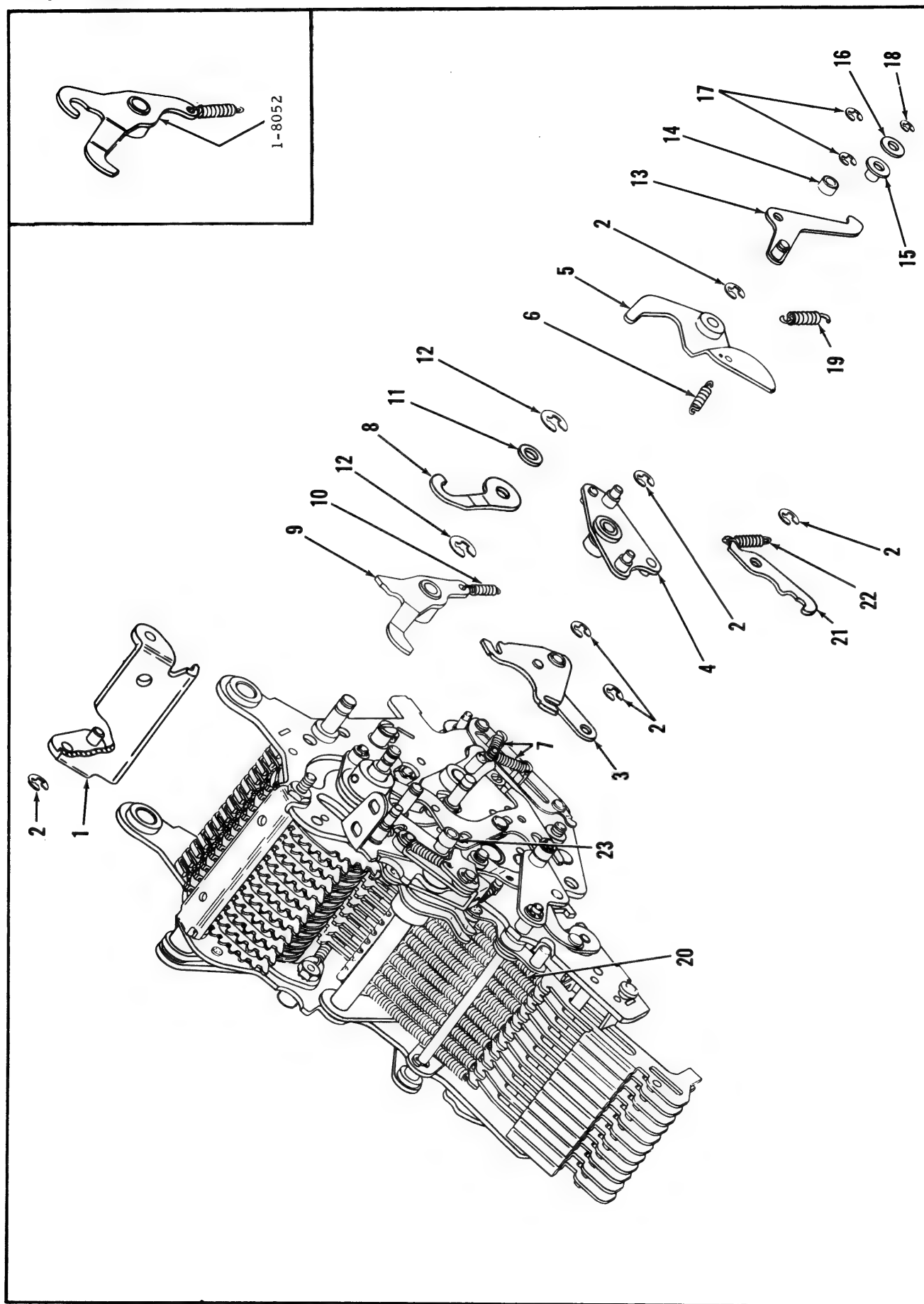


FIGURE 8

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
8- 1	1-8039									1
8- 2	7018									6
8- 3 A	1-7939									1
8- 4	1-7361									1
8- 5	1-7973									1
8- 6	M-289									1
8- 7	5043									2
8- 8 B	25349									1
8- 9 B	1-25356									1
8-10 B	9455									1
8-11 B	S-966									1
8-12	7019									2
8-13	1-17025									1
8-14	3813									1
8-15	25006									1
8-16	F-1846 $\frac{1}{2}$									1
8-16	8434									AR
8-16	25012									AR
8-17	7017									2
8-18	12575									1
8-19	2483									1
8-20	4563									11
8-21	7368									1
8-22	F-2689									1
8-23	3813									1
<p>A - Accumulator Selector #1-7340 was used on machines below serial #2122-973 to replace order #1-7939 Selector and #1-7361 new Style Accumulator Selector Plate.</p> <p>B - Carriage Lock #1-25356 and Lock Limit #25349 superseded Carriage Lock #1-8052 (see illustration in box). To replace lock #1-8052, order all parts with a "B" indication.</p>										

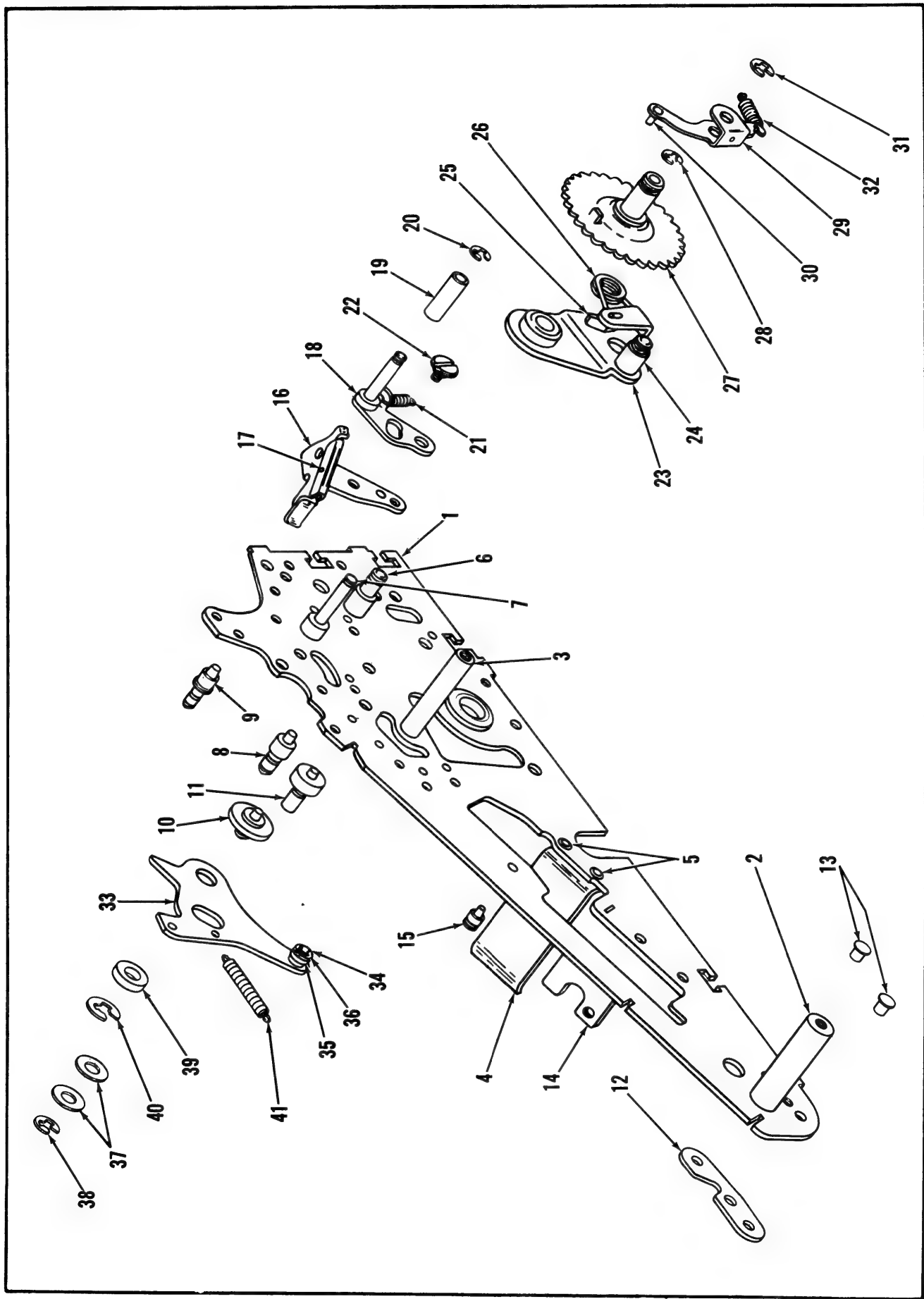


FIGURE 9

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
9 A	1-13327									1
9- 1	9018 *									1
9- 2	8367									1
9- 3	12024									1
9- 4	4343									1
9- 5	2901									2
9- 6	5871									1
9- 7	5865									1
9- 8	8606									1
9- 9	8906									1
9-10	8365									1
9-11	3752									1
9-12	12104									1
9-13	2901									2
9-14	6042 *									1
9-15	1293									1
9	1-9285 *									1
9-16	5859									1
9-17	4143									1
9	1-9284									1
9-18	1-9283									1
9-19 B	9486									1
9-20 B	7017									1
9-21	5511									1
9-22	7152									1
9-23	1-12407									1
9-24	12250									1
9-25	5583									1
9-26 C	6293									1
9-27	1-5842									1
9-28	7017									1
9-29	1-15096									1
9-30	12110									1
9-31	7018									1
9-32	3699									1
9-33	1-7884									1
9-34	5926									1
9-35	3884									1
9-36	7017									1
9-37	S-8561									2
9-38	7018									1
9-39	14161									1
9-40	7019									1
9-41	4368									1
<p>A - Control Frame #1-13327 is used on machines above serial #1532-929. For machines below this serial number, order #1-12524 frame.</p> <p>B - Order #5858 Ribbon Guide Roller for machines using a #7018 Spring Keeper to secure roller.</p> <p>C - Order #5847 Ribbon Feed Pawl Spring for machines below serial #1929-801.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

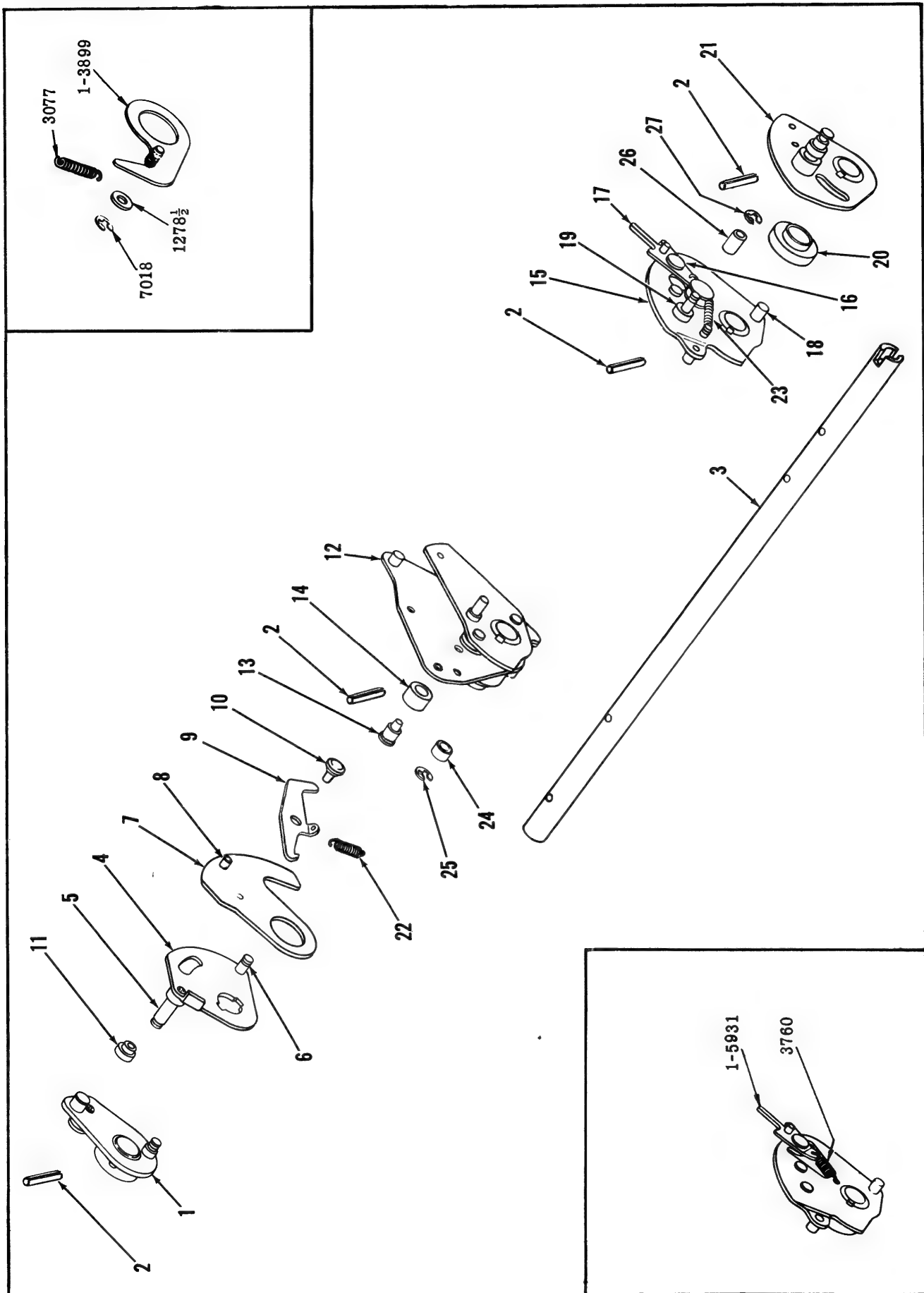


FIGURE 10

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
10- A	1-13242								Main Shaft Assembly - Custom Printing Calculators	1
10- 1	1-12227 *								Crank Assembly Complete - Drive	1
10- 2	4214								Roll Pin (1/8" x 5/8")	4
10- 3	12780 *								Shaft - Main	1
10	1-12961								Arm Assembly Complete	1
10- 4	1-4862 *								Arm Assembly - Key Lock Cam	1
10- 5	5768 *								Stud - Shoulder Keeper	1
10- 6	2363 1/2								Stud - Spring	1
10- 7	4681 *								Cam - Key Lock	1
10- 8	2229								Stud	1
10- 9	4683								Pawl - Key Lock Cam	1
10-10	4684								Rivet - Shoulder	1
10-11	4685								Spacer - Shoulder	1
10-12	1-12959 *								Arm Assembly - Rack Cam	1
10-13	8866								Rivet - Shoulder	1
10-14	8867								Roller - Counterbore (.312")	1
10-15	1-13217 *								Arm Assembly - Accumulator Control Pawl	1
10-16	5815								Rivet - Shoulder	1
10-17 B	1-13104								Pawl Assembly - Accumulator Control	1
10-18	12635								Stud - Printing Link Pivot	1
10-19	13216								Stud - Keeper	1
10-20	12271								Spacer - Right Printing Link Stop Collar	1
10-21 C	1-13542 *								Sector Assembly Complete - Governor	1
10-22	585								Spring (.343", .014" Wire)	1
10-23 B	9610								Spring (.715", .011" Wire)	1
10-24	3813								Roller (.218")	1
10-25	7017								Keeper - Spring (.125")	1
10-26 D	13496								Roller - Tubular (.225")	1
10-27	12575								Keeper - Spring	1
<p>A - Order #1-13242 Main Shaft for machines above serial #1435-374 for machines not employing #1-3899 Total Key Lock (illustrated in box). For machines above the serial number using #1-3899 Lock, order #1-13221 Main Shaft. For Machines between serial #1435-374 and #1696-780, also order #13496 Roller and #12575 Spring Keeper. For machines below serial #1435-374 order #1-13214 Non-Add Cam Control Lever, #13496 Roller and #12575 Spring Keeper.</p> <p>B - #1-13104 Accumulator Control Pawl and #3541 Spring cannot be used in place of #1-5931 Accumulator Control Pawl and #3760 Spring formerly used in this location. Pawl #1-5931 and #3760 Spring illustrated at left.</p> <p>C - Total Key Lock Hook #1-3899, Spacer #1278 1/2 and Spring #3077 (illustrated at left) were formerly used to restore the Total Key Lock #1-7884.</p> <p>D - Roller #13496 is used on machines above serial #1435-374. For machines below this serial number using a Roller, order Roller #7347.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

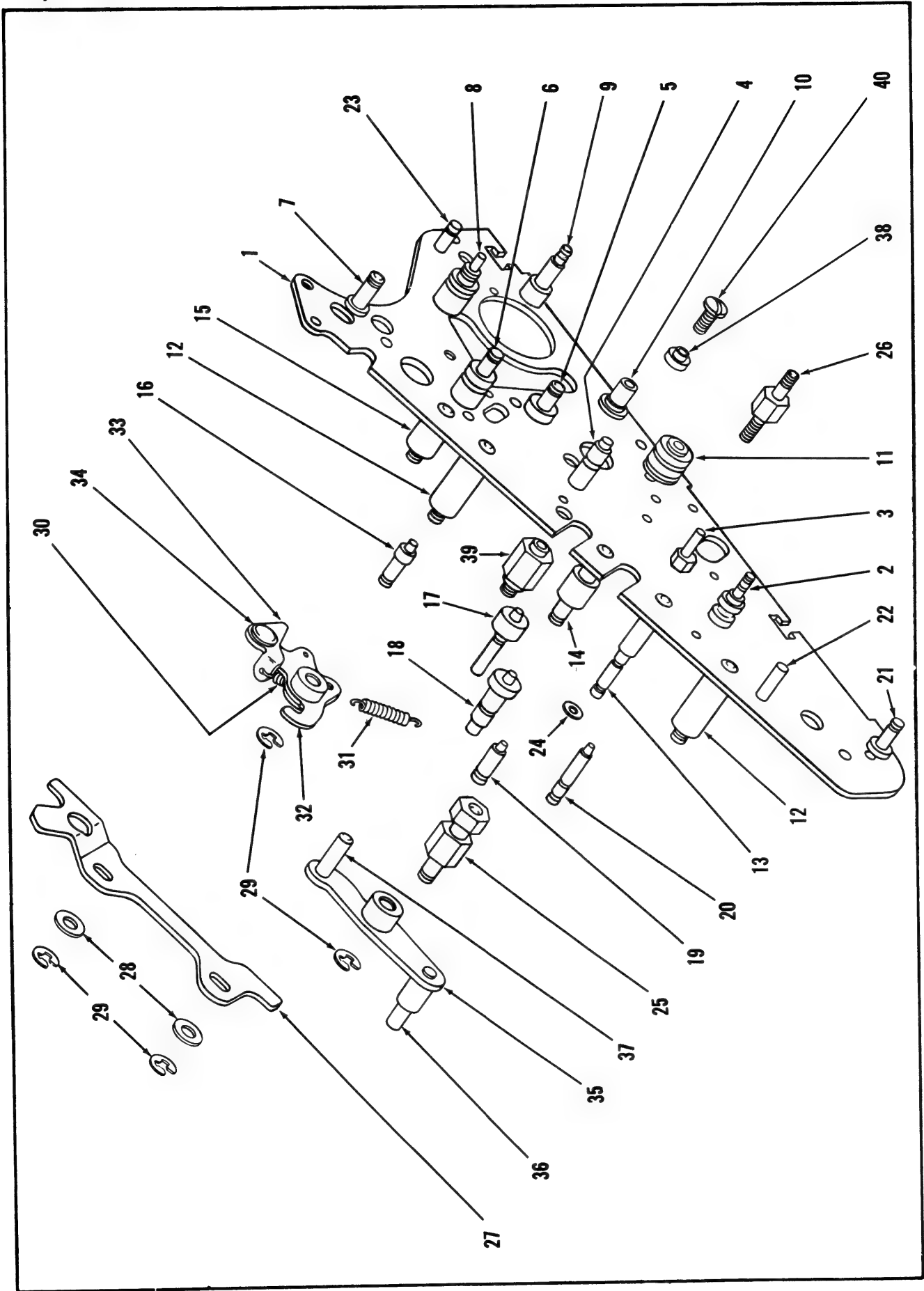


FIGURE 11

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
11 A	1-13597									1
11- 1	8200 *									1
11- 2	12917									1
11- 3	12972 *									1
11- 4	12913									1
11- 5	12320									1
11- 6	13156									1
11- 7	8272 *									1
11- 8	9171									1
11- 9	13596									1
11-10	12915									1
11-11	12274									1
11-12	8741									2
11-13	8271									1
11-14	8742									1
11-15	13249									1
11-16	8267									1
11-17	8268									1
11-18	8273									1
11-19	8263									1
11-20	8269									1
11-21	12916									1
11-22	2873									1
11-23	3581									1
11-24	12971 *									1
11-25	12266									1
11-26	12928									1
11-27	8299									1
11-28	8325									2
11-29	7018									4
11-30	4351									1
11-31	S-982									1
11-32	1-8340									1
11-33	8334									1
11-34	8335									1
11-35	1-8306									1
11-36	8302									1
11-37	8304									1
11-38	13168									1
11-39	12925									1
11-40	7077									1
<p>A - Frame #1-13597 is used on machines above serial #2307-030 (#12292 Motor Contact Latch Secured by a Keeper) Frame #1-13329 is used on machines between serial #1532-929 and #2307-030. Frame #1-13157 is used on machines between serial #1419-300 and #1532-929. Frame #1-12526 is used on machines between serial #1301-619 and #1419.300. Frame #1-12771 is used on machines below serial #1301- 619.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

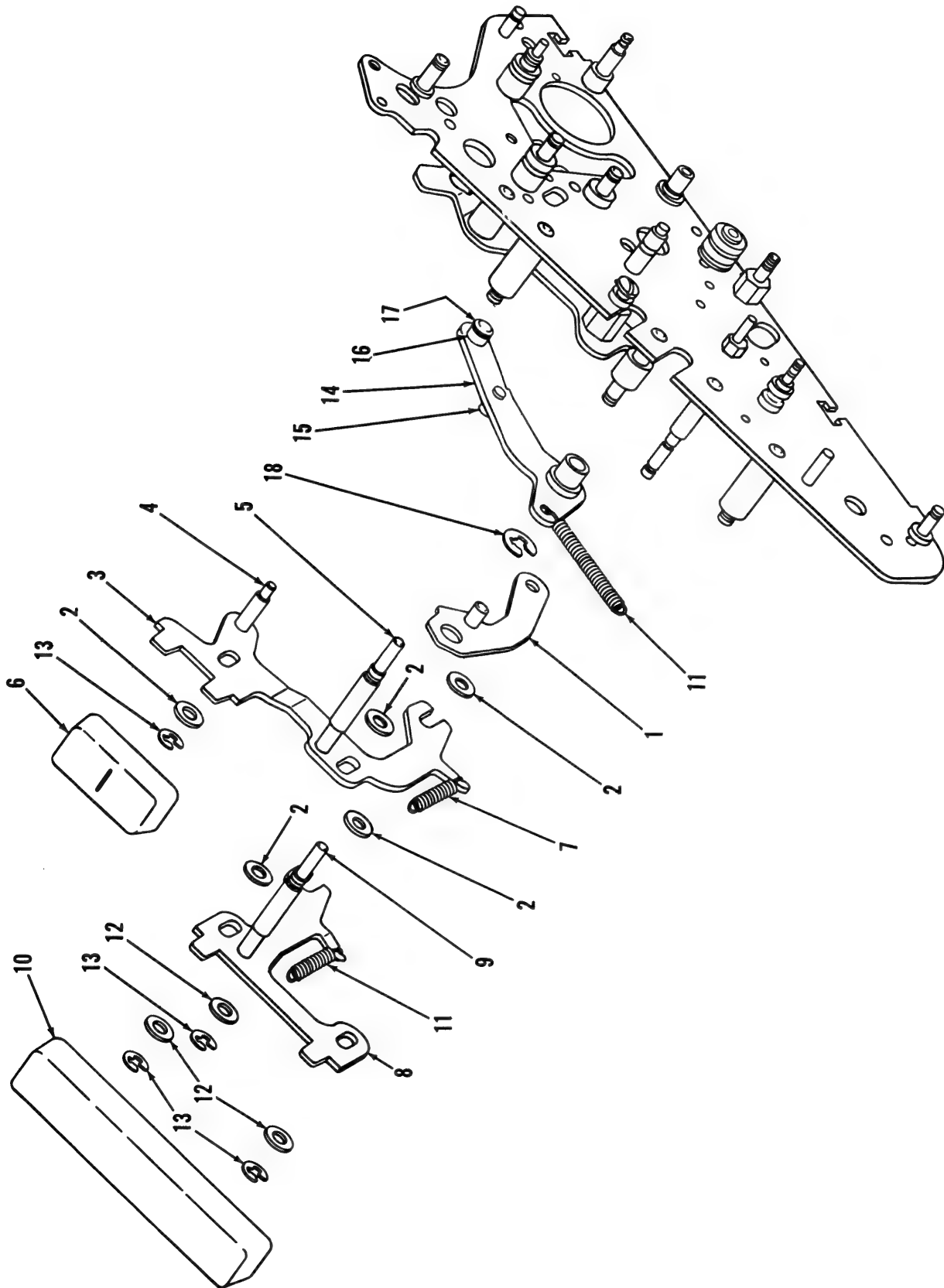


FIGURE 12

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
12- 1	1-8290	Interlock Assembly - Plus and Minus Key								1
12- 2	S-288 $\frac{1}{2}$	Spacer - Flat (.010")								5
12- 3	1-12449	Key Assembly - Minus								1
12- 4	8317	Stud - Shoulder								1
12- 5	13008	Stud - Shoulder								1
12- 6	13347	Bar - Minus								1
12- 7	245	Spring (.625", .012" Wire)								1
12- 8	1-12448	Key Assembly - Plus								1
12- 9	13008	Stud - Shoulder								1
12-10	13349	Bar - Plus								1
12-11	427	Spring (.687", .011" Wire)								2
12-12	8325	Spacer - Flat (.025")								3
12-13	7018	Keeper - Spring (.156")								4
12-14	1-8332	Lever Assembly - Minus								1
12-15	8318	Stud								1
12-16	8330	Roller (.2187")								1
12-17	8617	Rivet - Shoulder								1
12-18	7019	Keeper - Spring (.1875")								1

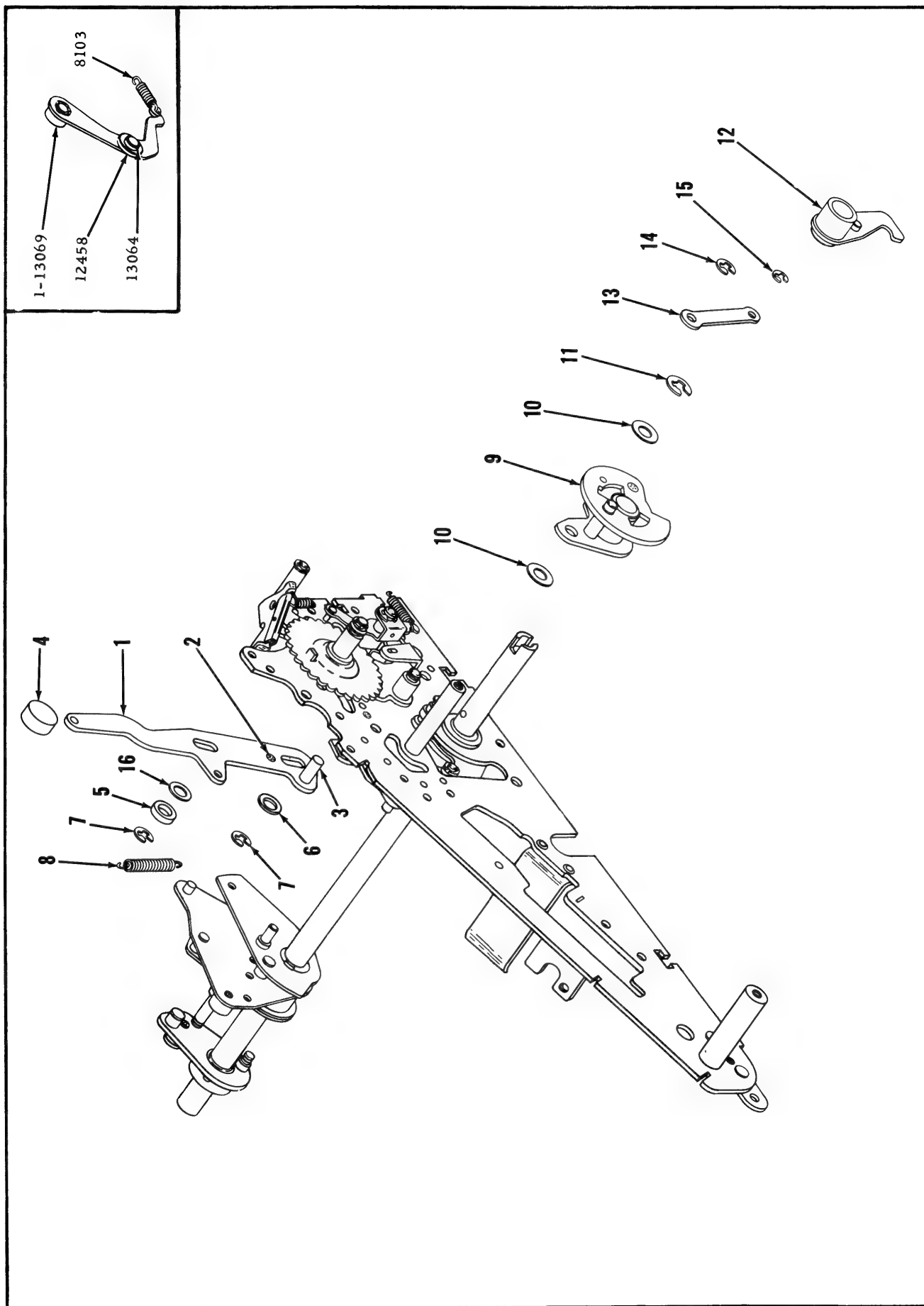


FIGURE 13

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
13- 1	1-13325									1
13- 2	11305									1
13- 3	4339									1
13- 4	7116									1
13- 5	8348									1
13- 6	8325									1
13- 7	7018									2
13- 8	2983									1
13- 9 A	1-8425									1
13-10	1268 $\frac{1}{2}$									2
13-11	7019									1
13-12	1-9012									1
13-13	3974									1
13-14	7018									1
13-15	7017									1
13-16	5158									1
<p>A - For machines below serial #2049-023 order #1-13068 Subtract Cam Assembly. Multiplic- and Wheel Detent Arm Assembly #1-13069 is used with #1-13068 on machines below this serial number. (see illustration in box).</p>										

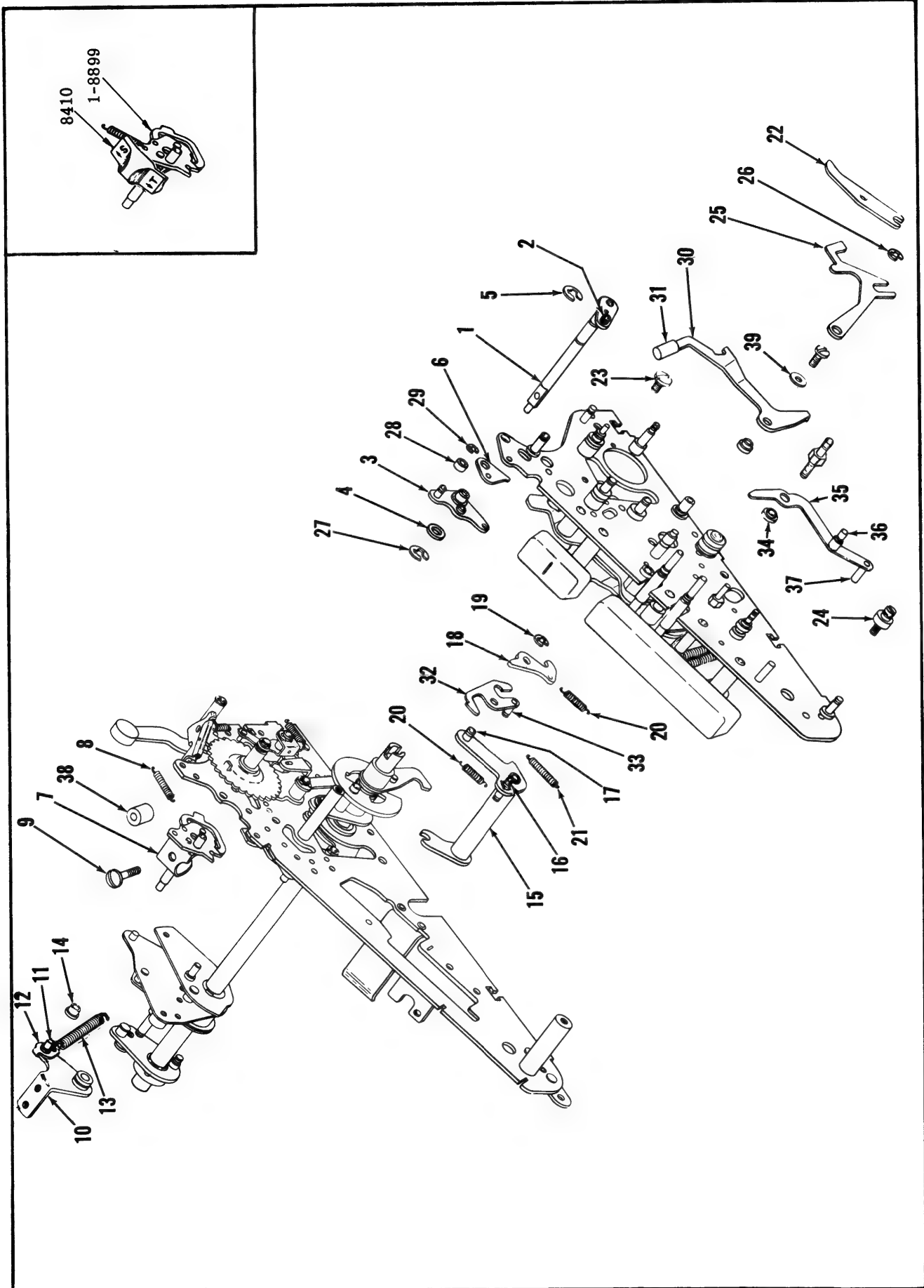


FIGURE 14

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
14- 1 A	1-13071									1
14- 2	12734									1
14- 3 B	1-13499									1
14- 4	S-966									1
14- 5	5782									1
14- 6	1-12610									1
14- 7B	1-13330									1
14- 8	S-989									1
14- 9	13059									1
14-10	1-5914									1
14-11	4123									1
14-12	7489									1
14-13	7491									1
14-14	5581									1
14-15	1-12911									1
14-16	12908									1
14-17	12909									1
14-18	8405									1
14-19	7018									1
14-20	12929									2
14-21	427									1
14-22	25333									1
14-23	8356									1
14-24	13007									1
14-25	12298									1
14-26	7018									1
14-27	5782									1
14-28	3813									1
14-28	3108									AR
14-28	8609									AR
14-28	3883									AR
14-28	3885									AR
14-28	3786									AR
(Continued on Following page)										
<p>A - Order #1-13071 Total Key Shaft for machines above serial #1360-084. For machines below this serial number, order #1-13071 Total Key Shaft, #13072 Tubular Spacer, and #13059 Total Bracket Screw.</p> <p>Order #13072 Tubular Spacer for machines above serial #1360-084. For machines below this serial number, order #13058 Tubular Spacer.</p> <p>B - Order #1-8438 Minus Crank Assembly for all Multiplier Models.</p> <p>Order #1-9121 Total Key Interlock Crank for machines below serial #1532-929.</p> <p>Order #1-8899 Total Key and #8410 Total Button (illustrated at left) for machines below serial #1532-929.</p>										

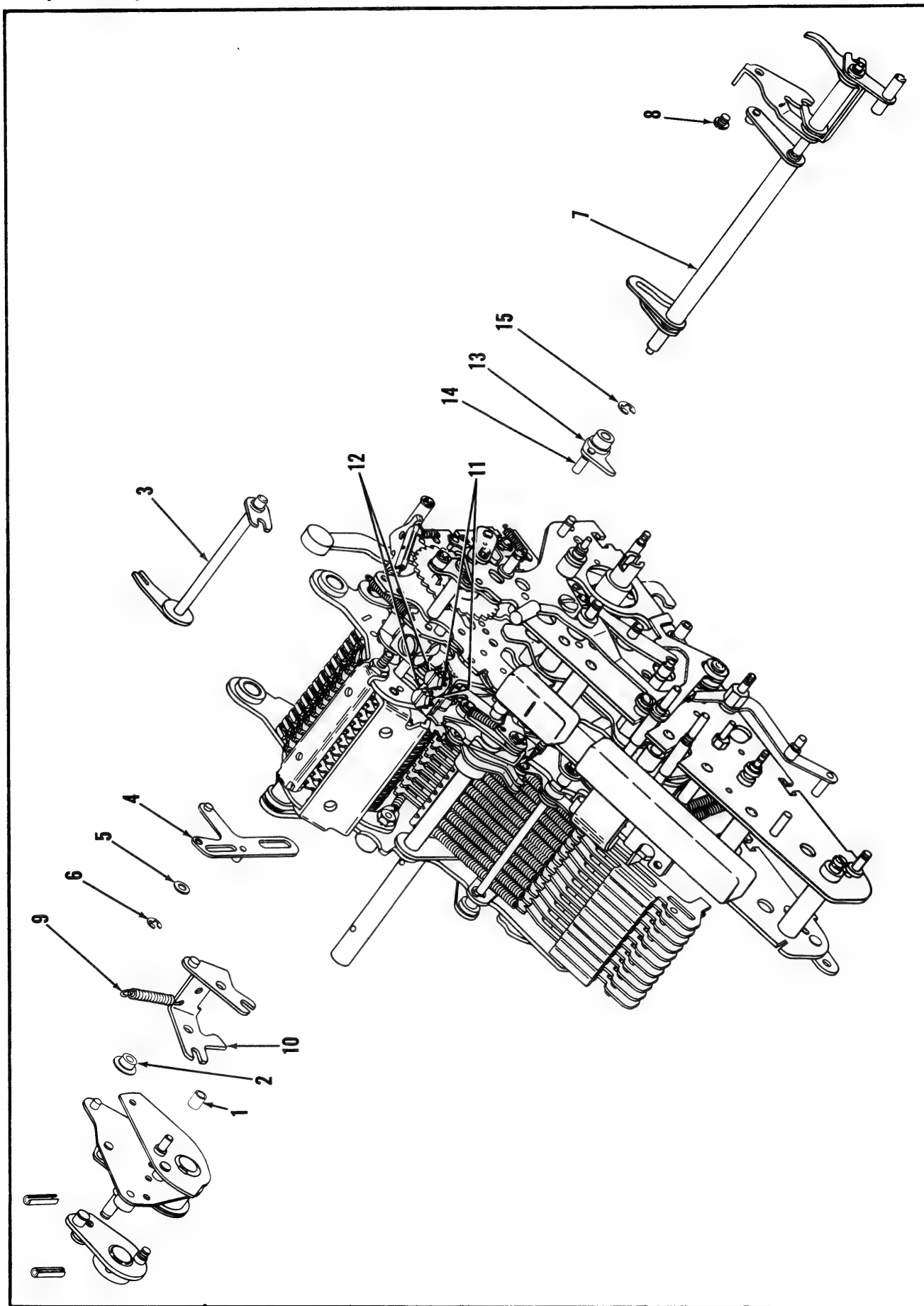


FIGURE 15

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
		(Continued from preceding page)								
14-29	7017									1
14-30 C	13154									1
14-31	12628									1
14-32	1-12923									1
14-33	12921									1
14-34	12926									1
14-35	1-12920									1
14-36	12918									1
14-37	12796									1
14-38 A	13072									1
14-39	11430									1
15- 1	7415									1
15- 2	6978									1
15- 3	1-8125									1
15- 4	1-12595									1
15- 5	5965									1
15- 6	7017									1
15- 7 A	1-13368									1
15- 8	3781									1
15- 9	1291-1									1
15-10	1-7459									1
15-11	2509									2
15-12	8259									2
15-13	1-9175									1
15-14	8292									1
15-15	7018									1
A - Order #1-9127 Feature Key Block for machines below serial #1532-929.										
C - Order #12931 Stop Key for machines below serial #1419-300.										

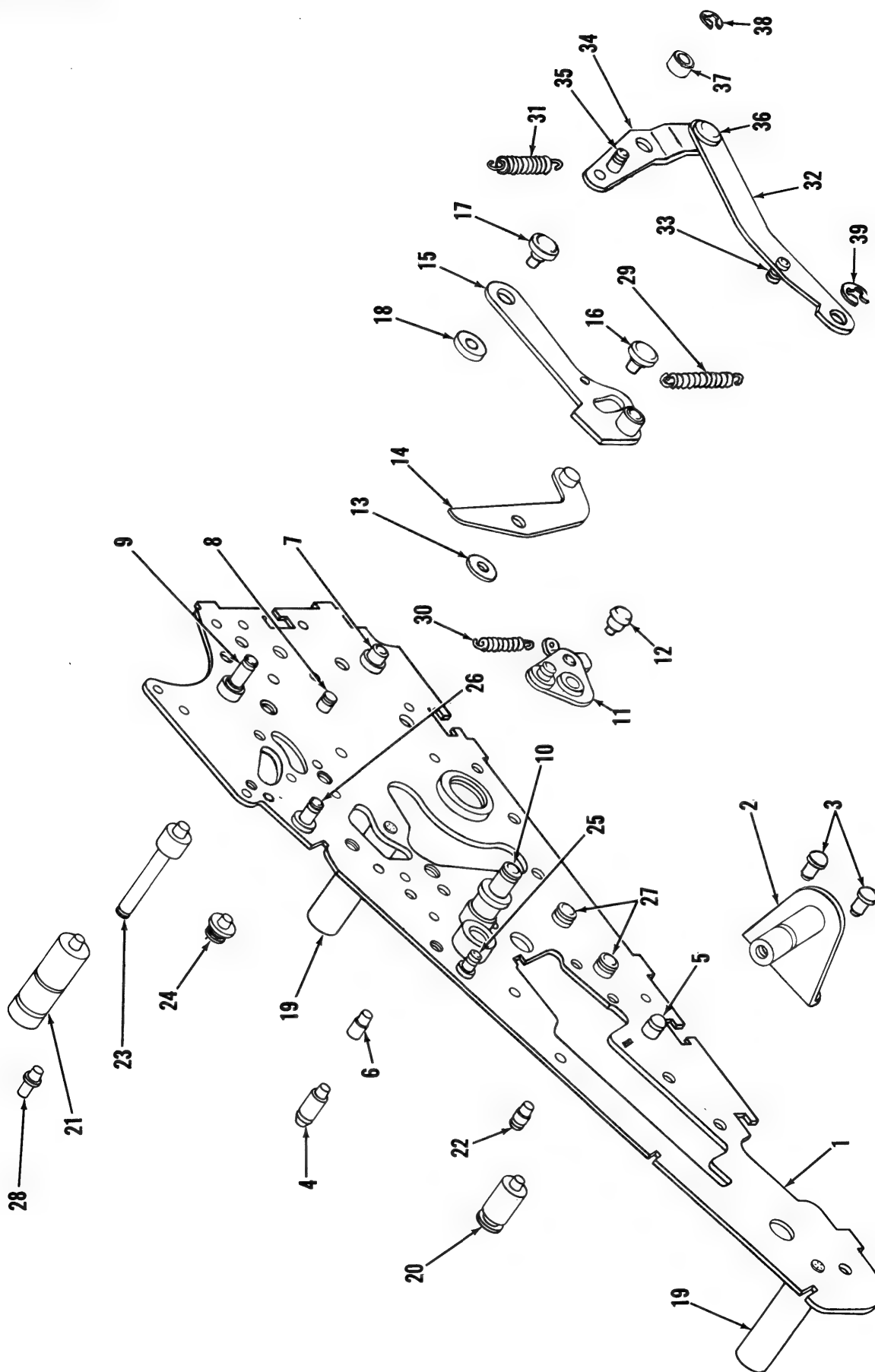


FIGURE 16

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
16 A	1-13380									1
16- 1	8911									1
16- 2	1-12684									1
16- 3	2901									1
16- 4	7985									2
16- 5	S-681 $\frac{1}{2}$									1
16- 6	15527									1
16- 7	4748									1
16- 8	14253 $\frac{3}{4}$									1
16- 9	6916									1
16-10	4523									1
16-11	1-4512									1
16-12	4504									1
16-13	2362 $\frac{1}{2}$ *									1
16-14	1-4806 *									1
16-15	1-6903 *									1
16-16	4694 *									1
16-17	S-875 $\frac{1}{2}$ -1 *									1
16-18	F-1143 $\frac{1}{4}$ *									1
16-19	8367									2
16-20	12251									1
16-21	12258									1
16-22	7993									1
16-23	5865									1
16-24	7952									1
16-25	12951									1
16-26	12952									1
16-27	12964									1
16-28	9321									2
16-29	M-789									1
16-30	6535									1
16-31	888									1
16	1-4582									1
16-32	4506 *									1
16-33	6986									1
16-34	4502 *									1
16-35	6983 *									1
16-36	2113 *									1
16-37	3885									1
16-38	7017									1
16-39	7018									1
<p>A - Left Control Frame #1-13380 is used on machines above serial #1772-681. Frame #1-13312 is used on machines between serial #1532-929 and #1772-681. Frame #1-12953 is used on machines below serial #1532-929.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

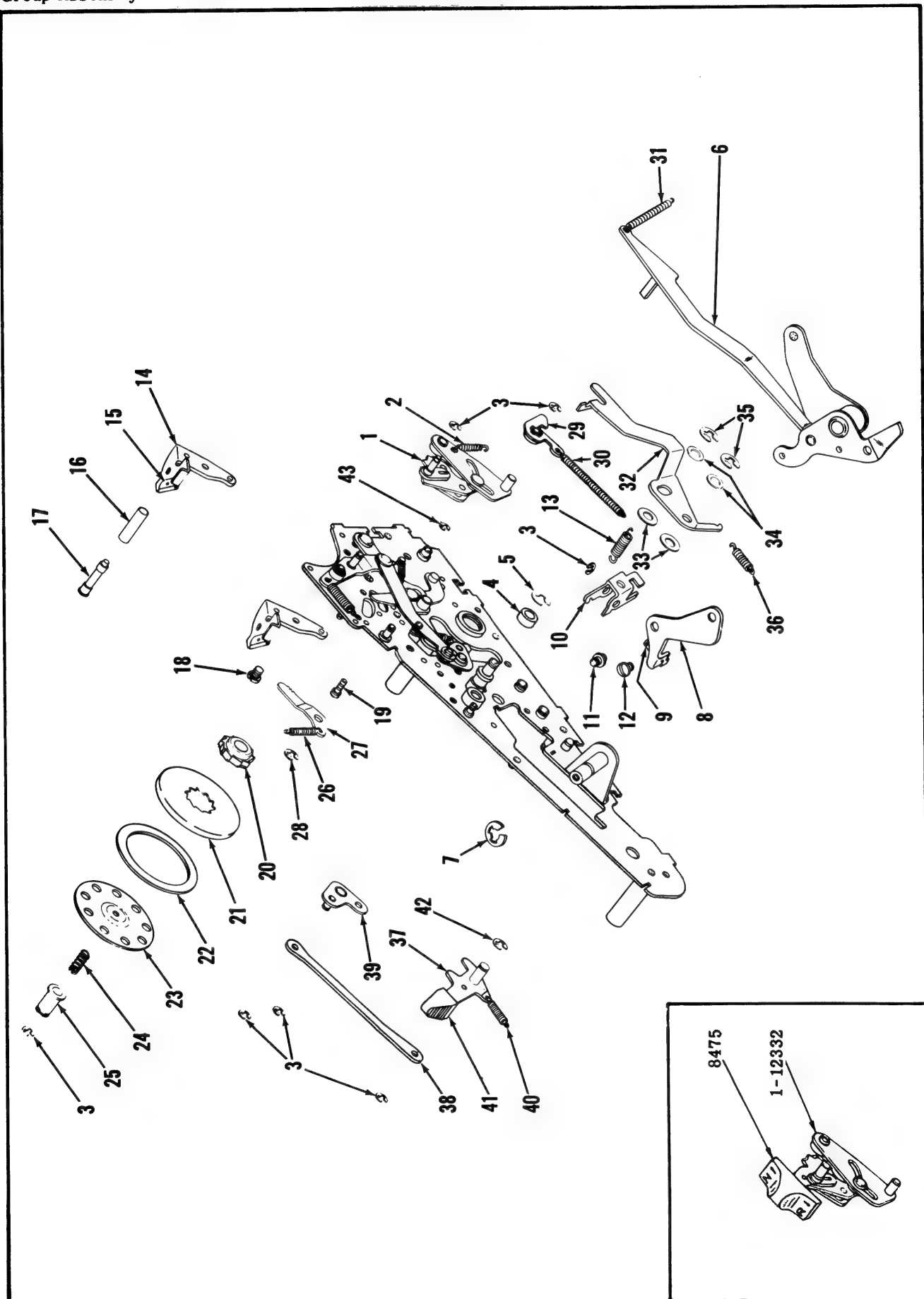


FIGURE 17

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
17- 1 A	1-13385									Arm Assembly - Repeat & Non-Add	1
17- 2	13371									Spring (.872", .016" Wire)	1
17- 3	7017									Keeper - Spring (.125")	7
17- 4	237									Roller (.312") (Adjustment Rollers #4435 (.281") #4584 (.296"), #4585 (.328"), #4586 (.344"))	1
17- 5	7019									Keeper - Spring (.1875")	1
17- 6	1-12949									Arm Assembly - Stop Carriage Restoring	1
17- 7	7020									Keeper - Spring (.250") (Adjustment Keeper #8844 (AR) and Spacer #538A (AR))	1
17- 8	1-12749									Control Assembly - Auto-Total Pivot	1
17- 9	12171									Stud - Keeper	1
17-10	12769									Trip - Calculating Cam Shaft Feed Pawl	1
17-11	7154									Screw - Spring	1
17-12	3781									Screw - Binding Head (.115")	1
17-13	3547									Spring (.187", .008" Wire)	1
17	1-5864									Bracket Assembly Complete - Ribbon Guide (Left)	1
17-14	5860 *									Bracket Assembly - Ribbon Guide (Left)	1
17-15	4143									Clip - Ribbon Guide Bracket	1
17-16	5858									Roller - Ribbon Guide	1
17-17	9394									Stud - Shoulder	1
17-18	3781									Screw - Binding Head (.115")	1
17-19	15581									Stud - Spring	1
17-20	5851									Ratchet - Ribbon Feed (Left)	1
17-21	5852									Plate - Friction Ring	1
17-22	5853									Ring - Friction (.031") (Vellumoid)	1
17-23	5854									Drive Plate - Ribbon Spool (Left)	1
17-24	5855									Spring - Compression (Left Ribbon Feed)	1
17-25	5856									Bushing - Ribbon Feed (Left)	1
17-26	F3-82									Spring (.625", .010" Wire)	1
17-27	5870									Detent - Stop Left Ribbon Feed Ratchet	1
17-28	9233									Keeper - Spring	1
17-29	1-12814									Stop Assembly - Restore Link	1
17-30	2982									Spring (.813", .010" Wire)	1
17-31	8662									Spring (1.752", .012" Wire)	1
17-32	12816									Arm - Actuating (Restore Link)	1
17-33	1290 $\frac{1}{4}$									Spacer - Flat (.010")	2
17-34	11242									Washer	2
17-35	7019									Keeper - Spring (.1875")	2
17-36	585									Spring (.343", .014" Wire)	1
17-37 B	1-13383									Key Assembly - Repeat & Non-Add	1
17-38 B	13386									Link - Repeat & Non-Add Key	1
17-39 B	1-13306									Crank Assembly - Repeat & Non-Add Key	1
17-40	M-789									Spring (.443", .013" Wire)	1
17-41	13348									Button - Selection	1
17-42	7018									Keeper - Spring (.156")	1
17-43	13078									Keeper - Spring (For Adjustment Use #12575)	1
<p>A - Repeat & Non-Add Arm #1-13385 is used on machines above serial #1532-929, for machines below serial #1532 - 929, order #1-12332 Repeat & Non-Add Arm (see illustration in box).</p> <p>B - Order #1-13308 Repeat & Non - Add Key and #13309 Repeat & Non-Add Key Link for machines below serial #1772-681.</p>											
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>											

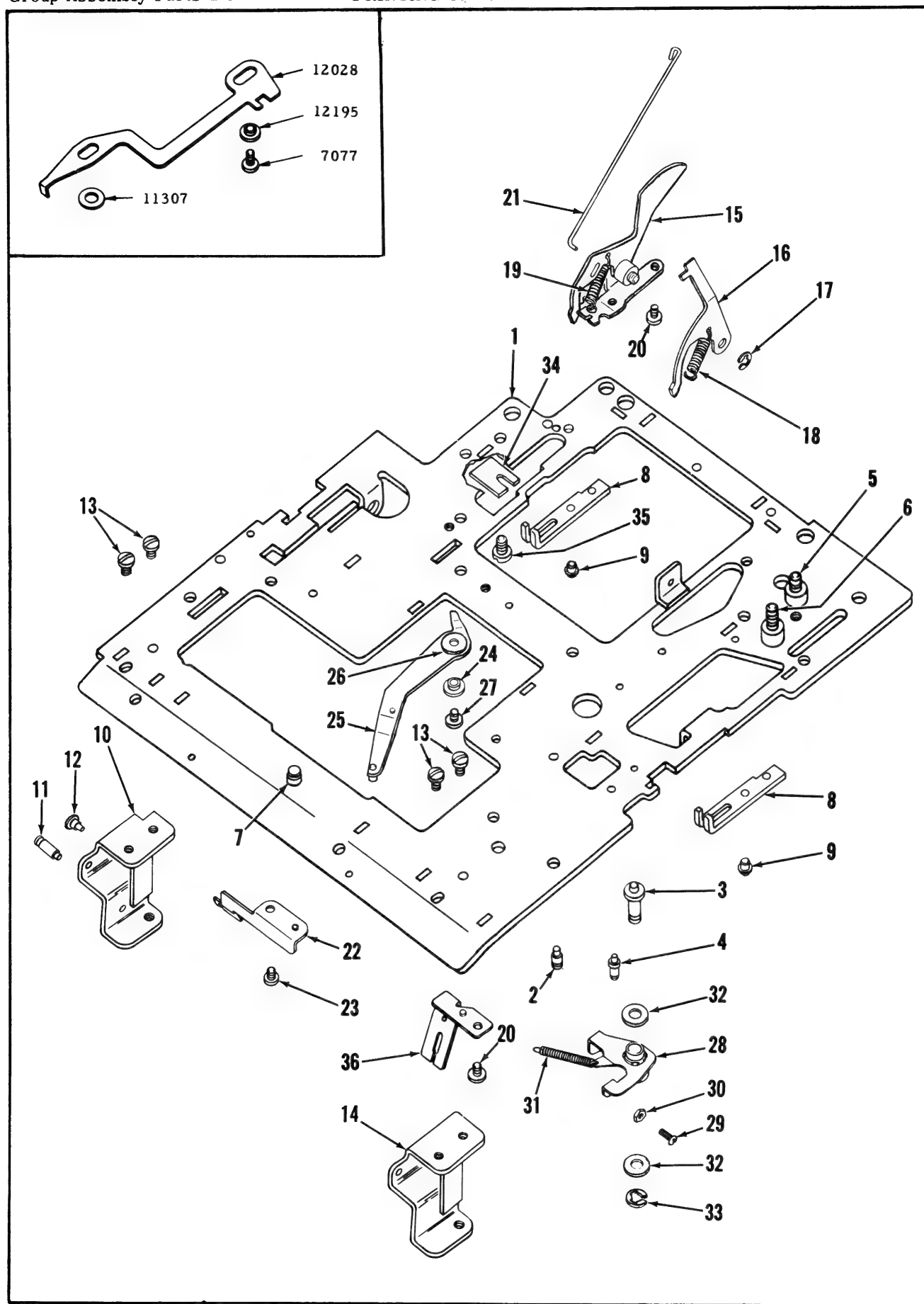
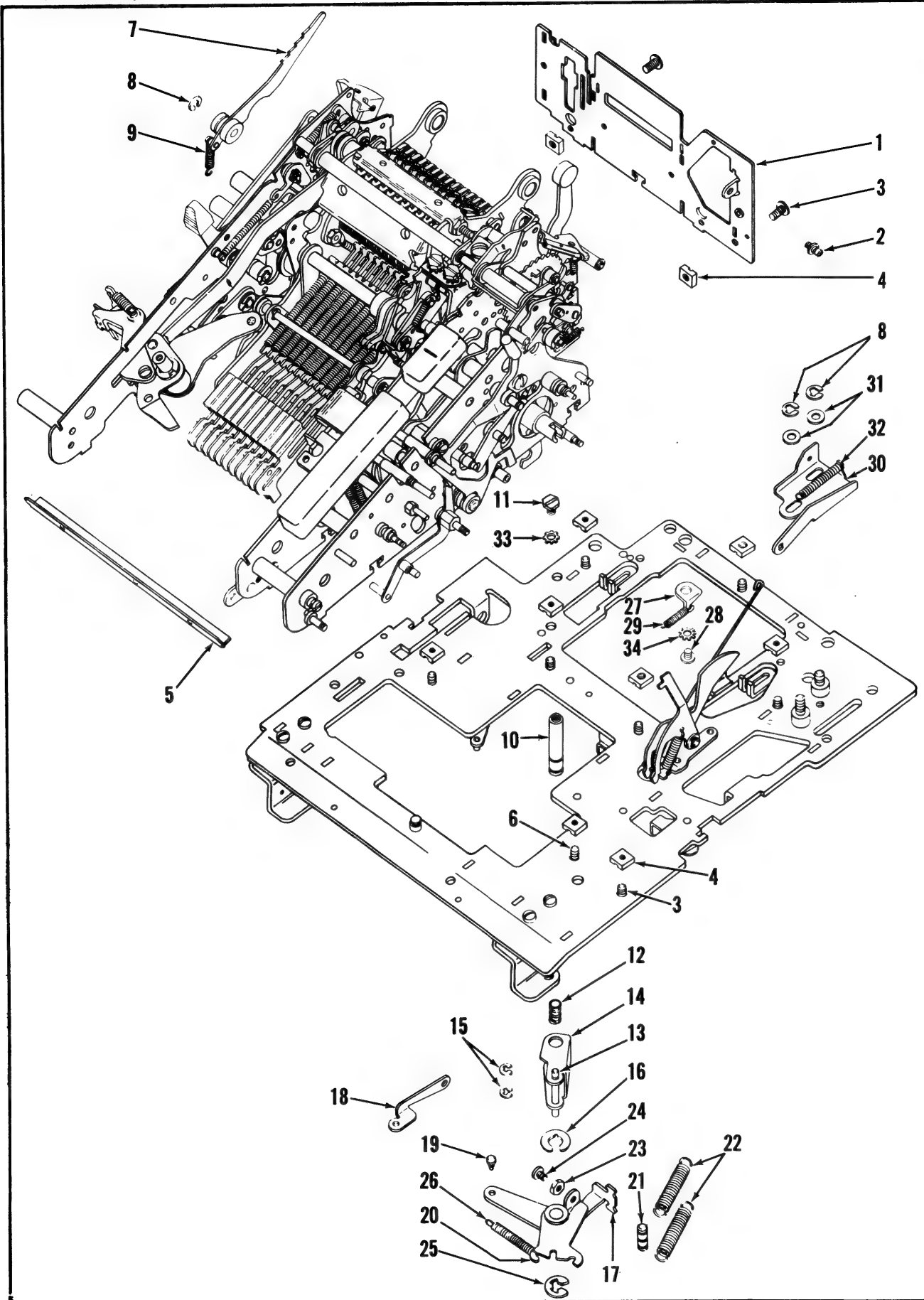


FIGURE 18

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

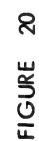
Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
18- 1 A	1-13566									Base Assembly	1
18- 2	1293									Stud	1
18- 3	12072									Stud - Shoulder Spring Keeper	1
18- 4	13612									Stud - Spring	1
18- 5	9015									Stud - Spring Keeper Shield	1
18- 6	9016									Stud - Shoulder Spring Keeper	1
18- 7	13209									Stud - Keeper	1
18- 8	12256									Guide - Printing Link	2
18- 9	2901									Rivet - Round Head	2
18-10 B	1-9427									Bracket Assembly - Base Mounting (Left) (1-9428 Multipliers)	1
18-11	255									Stud	1
18-12	7396									Rivet - Shoulder	1
18-13	1267									Screw - Binding Head (.187")	4
18-14 C	1-9473									Bracket Assembly - Base Mounting (Right)	1
18- 1 D	1-13215									Lever Assembly Complete-Non-Add Cam Control	1
18-15	1-13214									Lever Assembly-Non-Add Cam Control	1
18-16	12260									Lever - Keyboard Lock Cam Control	1
18-17	9233									Keeper - Spring (Adjustment Keepers No. 7018 and No. 13039)	1
18-18	4952									Spring (.219", .008" Wire)	1
18-19	12452									Spring (.375", .022" Wire)	1
18-20	3632									Screw - Binding Head (.187")	2
18-21	12265									Wire - Non-Add Control Lever	1
18-22 E	13028									Guide - Index Control Drive Arm Lock Slide	1
18-23	3781									Screw - Binding Head (.115")	1
18-24	12195									Spacer - Shoulder	1
18-25	1-25233									Arm Assembly - Escapement Shaft Connecting	1
18-26	7372									Spacer - Flat (.012")	1
18-27	3632									Screw - Binding Head (.187")	1
18-28	1-13180									Latch Assembly Complete - Calculating Stop Cam	1
18-29	12738									Screw - Adjusting	1
18-30	3410									Nut - Hex (.184")	1
18-31	4734									Spring (.459", .010" Wire)	1
18-32	1268 1/2									Spacer - Flat (.015")	2
18-33	7019									Keeper - Spring (.1875")	1
18-34	12950									Block - Printing Link Control Slide	1
18-35	6962									Screw - Binding Head (.312")	1
18-36	13063									Guide - Multiply Cam Arm	1
A - For machines below serial #2049-023, order Base Assembly #1-12598. Multiplicand Wheel Detent Slide #12028 is used on machines below serial #2049-023. (See illustration in box)											
B - Base Mounting Bracket #1-9427 is used on Calculators above serial #1581-661. Base Mounting Bracket #1-9428 is used on Multipliers above serial #1581-661. Base Mounting Bracket #1-13277 is used on Calculators between serial #1468-846 & #1581-661. Base Mounting Bracket #1-13278 is used on Multipliers between serial #1468-846 & #1581-661.											
C - Base Mounting Bracket #9425 is used on machines above serial #1581-661. Base Mounting Bracket #12498 is used on machines below serial #1581-661.											
D - Non-Add Cam Control Lever Complete #1-13215 and Non-Add Cam Control Lever #1-13214 are used on machines above serial #1435-374, or machines using #7347 or #13496 Roller on Main Shaft. For machines below this serial number, order #1-12480 Lever or #1-12668 Lever Complete.											
E - Order #12063 Rack Stop Raise Lever Guide for Multipliers below serial #1124-396.											



CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
19- 1	8038									1
19- 2	7154									1
19- 3	6624									9
19- 4	5937									10
19- 5	8109									1
19- 6	3421									1
19- 7	1-8262									1
19- 8	7018									3
19- 9	2980-1									1
19-10	12196									1
19-11	8259									1
19-12	12506									1
19	1-12669									1
19-13	12189									1
19-14	12188									1
19-15	7017									2
19-16	92									1
19 A	1-25256									1
19-17 A	1-25255									1
19-18	25254									1
19-19	12187									1
19-20	12190									1
19-21	8419									1
19-22 A	13173									2
19-23	2101 $\frac{1}{4}$									1
19-24	12730									1
19-25	7020									1
19-26	2483									1
19-27	12492									1
19-28	7									1
19-29	4734									1
19-30	9017									1
19-31	8325									2
19-32	1281									1
19-33	2509									1
19-34	1499 $\frac{1}{4}$									1
<p>A - Index Control Drive Arm & Link Assembly Complete #1-25256 is used on machines above serial #1890-146. To replace #1-25256 or component parts, order as indicated below.</p> <p>If machine is below serial #1387-000, order #1-25256 Index Control Drive Arm & Link Complete and #1-25275 Control Cam Bracket Complete.</p> <p>If machine is between serial #1387-000 and #1435-958, and #1-25255 Index Control Drive Arm & Link, or #25254 Index Cam Link and #12187 Rivet, and #1-25275 Control Cam Bracket Complete.</p> <p>If machine is between serial #1435-958 and #1890-146, order #1-25255 Index Control Drive Arm & Link, or #25254 Index Cam Link and #12187 Rivet, and #1-25275 Control Cam Bracket Complete.</p> <p>Springs #13173 are used on machines above serial #1387-000. For machines below this serial number, order #12503 springs.</p>										



CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
20 A	1-13547									Frame Assembly - Outer Left	1
20- 1	12410 *									Frame - Outer Left	1
20- 2	12211 *									Stud - Shoulder	2
20- 3	12138									Stud - Double Shoulder	1
20- 4	12408 *									Stud - Shoulder	1
20- 5	12141									Stud - Shoulder Spring Keeper	1
20- 6	12625 *									Stud - Keeper (Calculating Selector)	1
20- 7	13467									Stud	1
20- 8	12245									Stud - Shoulder Keeper	1
20- 9	13012									Stud - Keeper	1
20-10	12248									Stud - Spring	1
20-11	13191									Stud - Shoulder Spring Keeper	1
20-12	14585									Rivet - Shoulder	1
20-13	13116									Post - Control Arm Bracket Support	1
20-14	12801									Rivet - Shoulder	2
20-15	S-681½									Stud	1
20-16	7397									Spacer - Flat	2
20-17	1-8204									Detent Assembly - Drive Link Retarding	1
20-18	1-12945									Arm Assembly - Calculating Selector Feed Pawl Control	1
20-19	12944 *									Pin - Feed Pawl Selector	1
20-20	12139									Stud - Calculating Selector	1
20-21	12195									Bearing - Escapement Shaft Connecting Arm	1
20-22	3632									Screw - Binding Head (.187")	1
20-23	12575									Keeper - Spring	1
20-24	7928									Roller	2
20-25	8558									Spring (.744", .024" Wire)	1
20-26	1-8739									Air Check Assembly Complete	1
20-27	2509									Washer - External Tooth Lock	2
20-28	3632									Screw - Binding Head (.187")	2
A - Frame #1-13547 is used on machines above serial #1297-732. Order Frame #1-12802 for machines below this serial number.											
* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.											

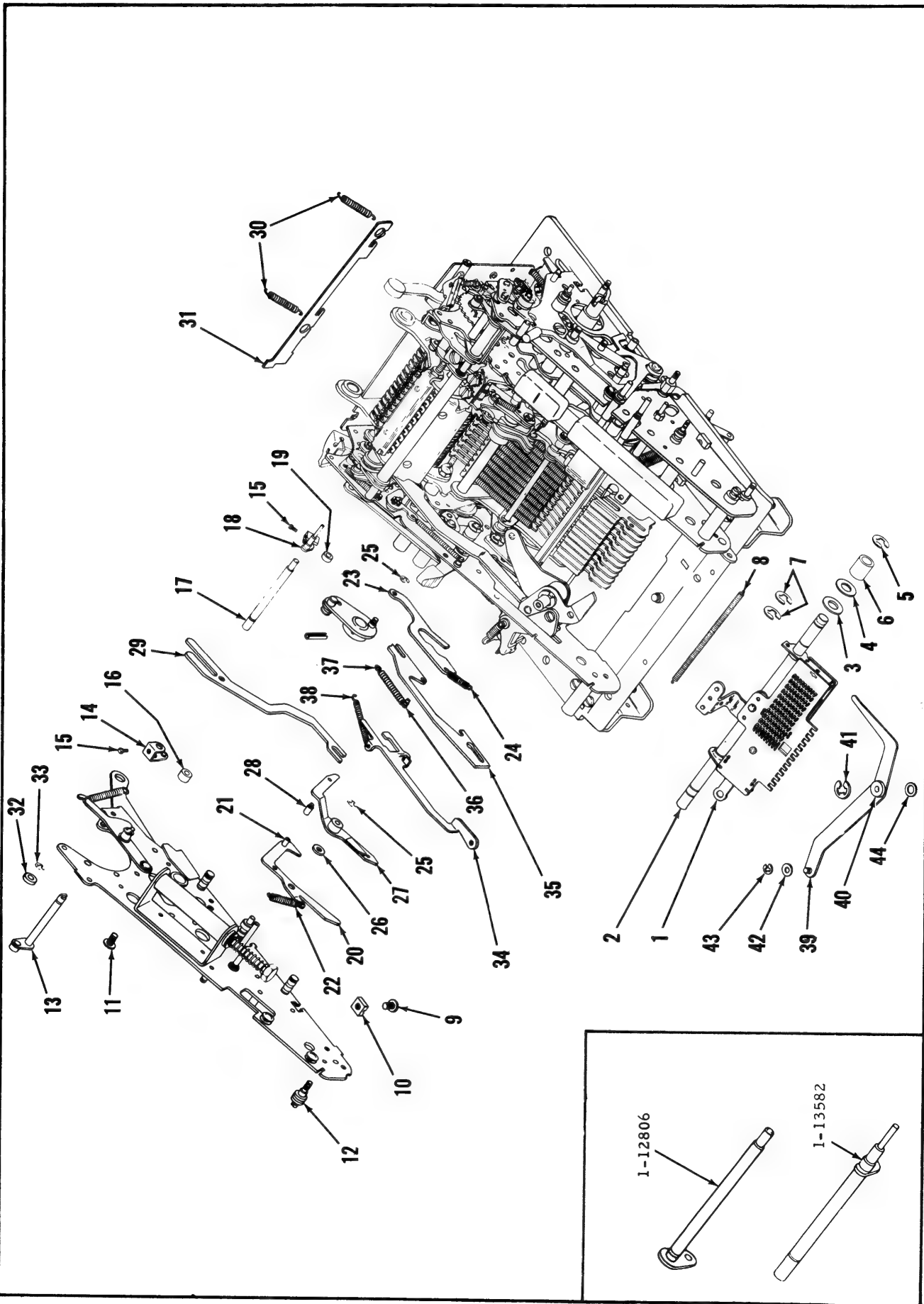


FIGURE 21

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
21- 1	1-8787									Stop Carriage Assembly	1
21- 2	8918									Shaft - Stop Carriage (Rear)	1
21- 3	4465									Washer - Special (.062" - Neoprene)	1
21- 4	1182									Spacer - Flat (.049")	1
21- 5	8844									Keeper - Spring (.250")	1
21- 6	13621									Spacer - Rubber	1
21- 7	7020									Keeper - Spring (.250")	2
21- 8	8616									Spring (2.796", .012" Wire - Stop Carriage)	1
21- 9	6624									Screw - Binding Head (.250")	1
21-10	5937									Nut - Special	1
21-11	7077									Screw - Binding Head (.281")	1
21-12	13163									Screw - Shoulder (Total Transfer Key Guide)	1
21-13	1-12590									Arm Assembly - Non-Add Key Shaft	1
21-14 A	1-13576									Arm Assembly - Signal Control Shaft	1
21-15	12447									Screw - Auto-Total Drive Link	2
21-16	13577									Roller (.250")	1
21-17 A	13625									Shaft - Signal Control	1
21-18 A	1-12810									Crank Assembly - Signal Type Sector	1
21-19 A	3813									Roller (.218")	1
21-20	1-25277									Pivot Assembly - Auto-Total	1
21-21	4717									Stud	1
21-22	2604									Spring (.594", .018" Wire)	1
21-23	12142									Pawl - Calculating Cam Shaft Feed	1
21-24	M-289									Spring (.406", .012" Wire)	1
21-25	7017									Keeper - Spring (.125")	2
21-26	F-1832½									Spacer - Flat (.028") (Adjustment Spacers #S-282½ (.010") #7519 (.005"))	1
21-27	1-25279									Control Assembly - Calculating Cam Shaft Feed Pawl	1
21-28	12643									Stud	1
21-29	12064									Control Slide - Printing Link	1
21-30	4563									Spring (1", .013" Wire)	2
21-31 B	13077									Control - Printing Link	1
21-32	9231									Spacer - Flat (.060") (Adjustment Spacers #S-288½ (.010") #5133 (.016"))	1
21-33	9233									Keeper - Spring (Adjustment Keeper #7018)	1
(Continued on following page)											
A - Signal Control Shaft #13625 is used on machines above serial #2479-065, Signal Control Shaft #1-13582 (illustrated in box) was used between serial #2200-571 & #2479-065. Signal Arm Shaft #1-12806 (illustrated in box) used below serial #2200-571. To Replace Signal Control Shaft #1-13582 order all parts with "A" indication. For Multipliers below serial #1301-619, order #1-12555 Signal Control Shaft.											
For Multipliers below serial #1301-619, order #12127 Signal Type Sector Crank.											
For Multipliers below serial #1301-619 order #12626 Roller.											
B - To replace Printing Link Control #13077 below serial #1373-553, also, order #7243 Gear Box Dust Cover.											

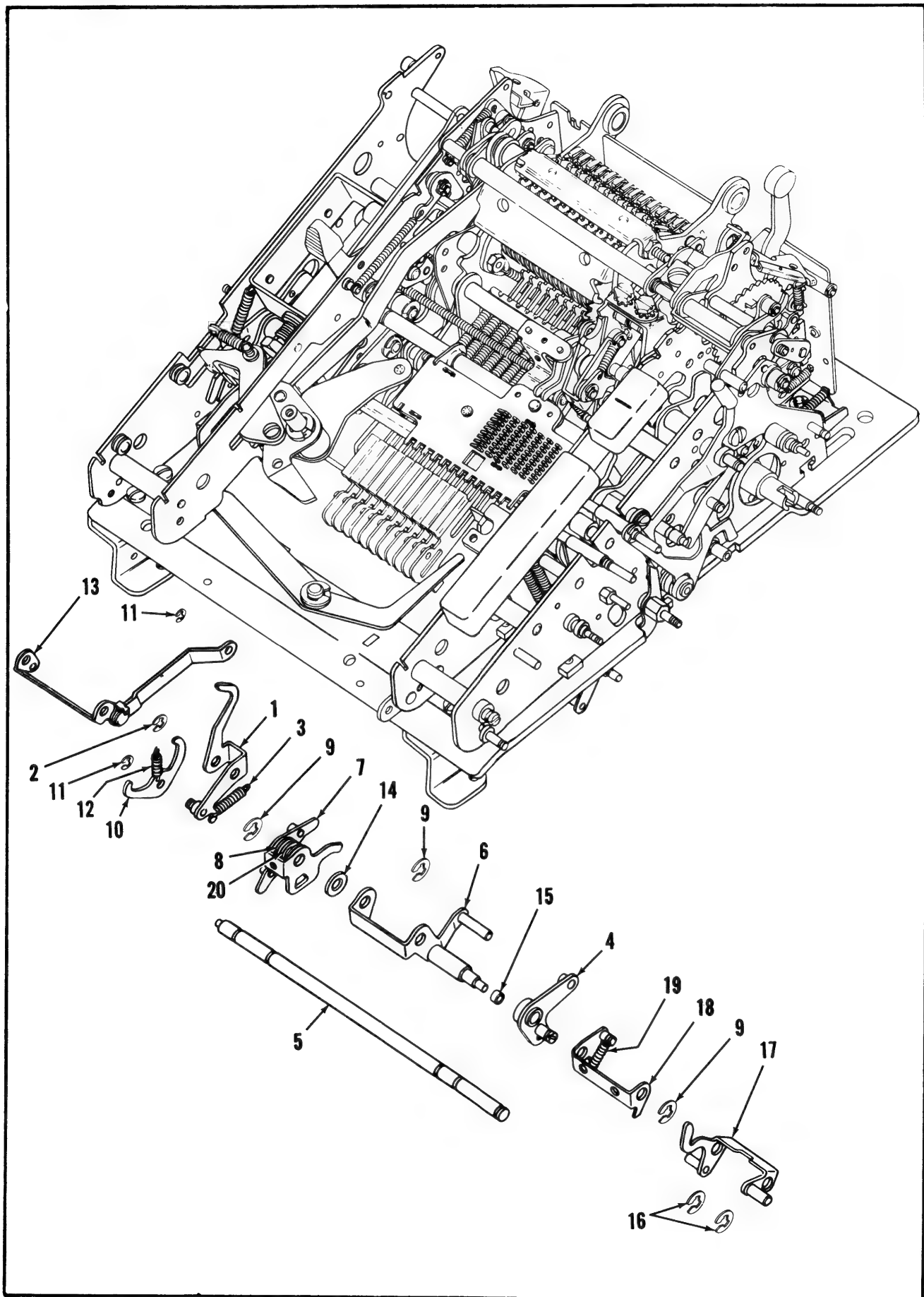


FIGURE 22

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
		(Continued from preceding page)								
21-34 D	12212	Latch - Index Stop Control Slide								1
21-35	1-12572	Slide Assembly - Index Stop Control								1
21-36	6986	Stud - Spring								1
21-37	2604	Spring (.336", .016" Wire)								1
21-38	12497	Spring - Index Stop Control Slide Latch								1
21-39	1-12493	Arm Assembly - Index Stop Control								1
21-40 E	1290 1/4	Bearing - Escapement Shaft Connecting Arm								1
21-41 E	7019	Keeper - Spring (.1875")								1
21-42	1420 1/2	Spacer - Flat (.008")								1
21-43	7017	Keeper - Spring (.125")								1
21-44	S-282 1/2	Spacer - Flat (.010")								1
22- 1	1-12587	Cam Arm Assembly - Fugitive One								1
22- 2	7018	Keeper - Spring (.156")								1
22- 3	25366	Spring (.468", .026" Wire)								1
22- 4 A	1-13050	Crank Assembly - Credit Balance								1
22- 5 B	13055	Shaft - Credit Balance								1
22- 6	1-13051	Pawl Assembly - Trip (Fugitive One)								1
22- 7	1-12585	Latch Assembly - Fugitive One								1
22- 8	3925	Spacer - Flat (.020") (Adjustment spacers #11307 (.025"); #11242 (.015"); #1290 1/4 (.010"), and #S-282 1/2 (.008") are used in place of #3925 to attain .010" to .015" sideplay in latch assembly)								AR
22- 9	7019	Keeper - Spring (.1875")								3
22-10	12307	Fork - Fugitive One (Adjustment Fork #13285)								1
22-11	7017	Keeper - Spring (.125")								2
22-12	12491	Spring (.109", .008" Wire)								1
22-13	1-12489	Link & Cradle Assembly - Calculating Count Arm								1
22-14	11307	Spacer - Flat (.025")								1
22-15	7347	Roller - Credit Balance Detent								1
22-16	7019	Keeper - Spring (.1875")								2
22-17	1-12832	Cradle Assembly - Auto-Subtract Hook Control								1
22-18	1-12857	Connecting Bracket Assembly								1
22-19	9317	Spring (.143", .015")								1
22-20	13027	Spacer - Tubular								1
A - Order #1-5813 Credit Balance Crank Assembly for all Multiplier Models.										
B - Order #13054 Credit Balance Shaft for all Multiplier Models. Auto-Subtract Hook Control Cradle Sleeve #12839 is no longer used with Extended Credit Balance Shaft.										
D - Order #12212 Index Stop Control Slide Latch for machines above serial #1375-807. For machines below this serial number, order #12212-1 Index Stop Control Slide Latch.										
E - Escapement Shaft Connecting Arm Bearing #12195 and Screw #3632 are used on machines which do not have a #13209 Stud on Base.										

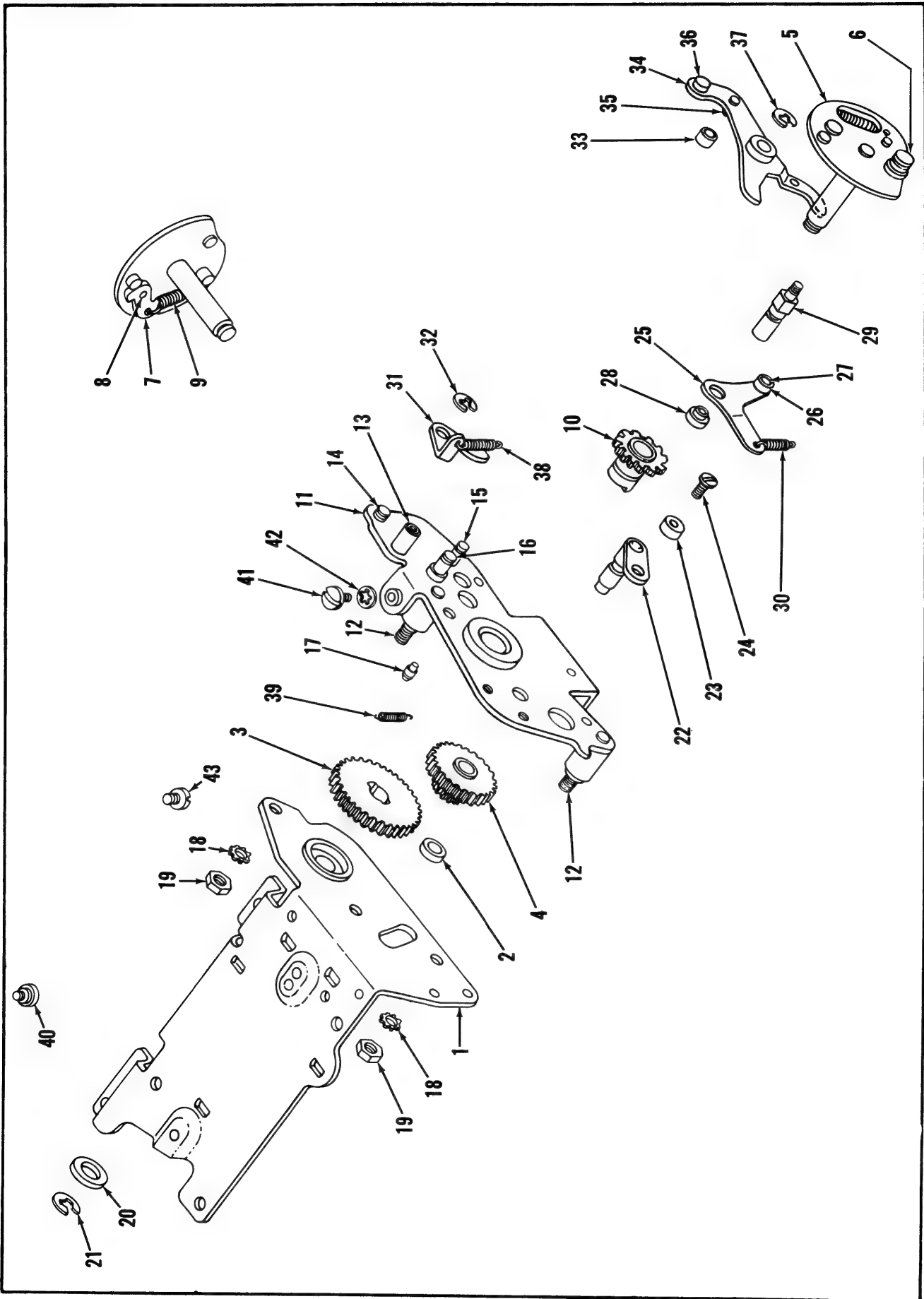


FIGURE 23

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
23 A	1-13579									1
23- 1	1-12528									1
23- 2	9299									1
23- 3	7248									1
23- 4 B	1-9251									1
23- 5 C	1-15656									1
23- 6	15655 *									1
23- 7 D	17622									1
23- 8	6518									1
23- 9	7281									1
23-10 D	9399									1
23-11 A	1-13297									1
23-12	7249									2
23-13	13115									1
23-14	7983									1
23-15	255									1
23-16	7257									1
23-17	S-45 $\frac{1}{2}$									1
23-18	1499 $\frac{1}{4}$									2
23-19	S-853 $\frac{1}{2}$									2
23-20	S-348 $\frac{1}{2}$									AR
23-21	7020									1
23-22	1-12500									1
23-23	12514									1
23-24	7077									1
23-25	1-7237									1
23-26	3649									1
23-27	3748									1
23-28	8464									1
23-29	12165									1
(Continued on following page)										
<p>A - Gear Box Assembly Complete #1-13579 and Outer Gear Box Frame #1-13297 are used in machines above serial #1581-661 using a Flyball Governor Motor and a #1-9251 Gear & Pinion. Gear Box Assembly Complete #1-13298 used in machines above this serial number using a Bodine Motor and a #1-7245 Gear & Pinion.</p> <p>Gear Box Assembly Complete #1-13117 and Outer Gear Box Frame #1-13112 are used in machines between serial #1297-732 and #1581-661.</p> <p>Gear Box Assembly complete #1-12687 and Outer Gear Box Frame #1-13112 are used in machines below serial #1297-732. Also, order #13110 Tubular Spacer and #13111 Screw</p> <p>B - Gear & Pinion Assembly #1-9251 is used in machines using a Flyball Governor Motor. Gear & Pinion Assembly #1-7245 is used in machines using a Bodine Motor.</p> <p>C - Drive Plate #1-15656 is used in machines above serial #1775-093 or machines using adjustable Motor Drive Link #15658. For machines below this serial number or for machines using non-adjustable drive link order #1-12517 Drive Plate.</p> <p>D - Drive Pawl #17622 and Drive Ratchet #9399 are used in machines above serial #1772-411. Drive Pawl #7290 and Drive Ratchet #7253 are used in machines below this serial number.</p>										
* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.										

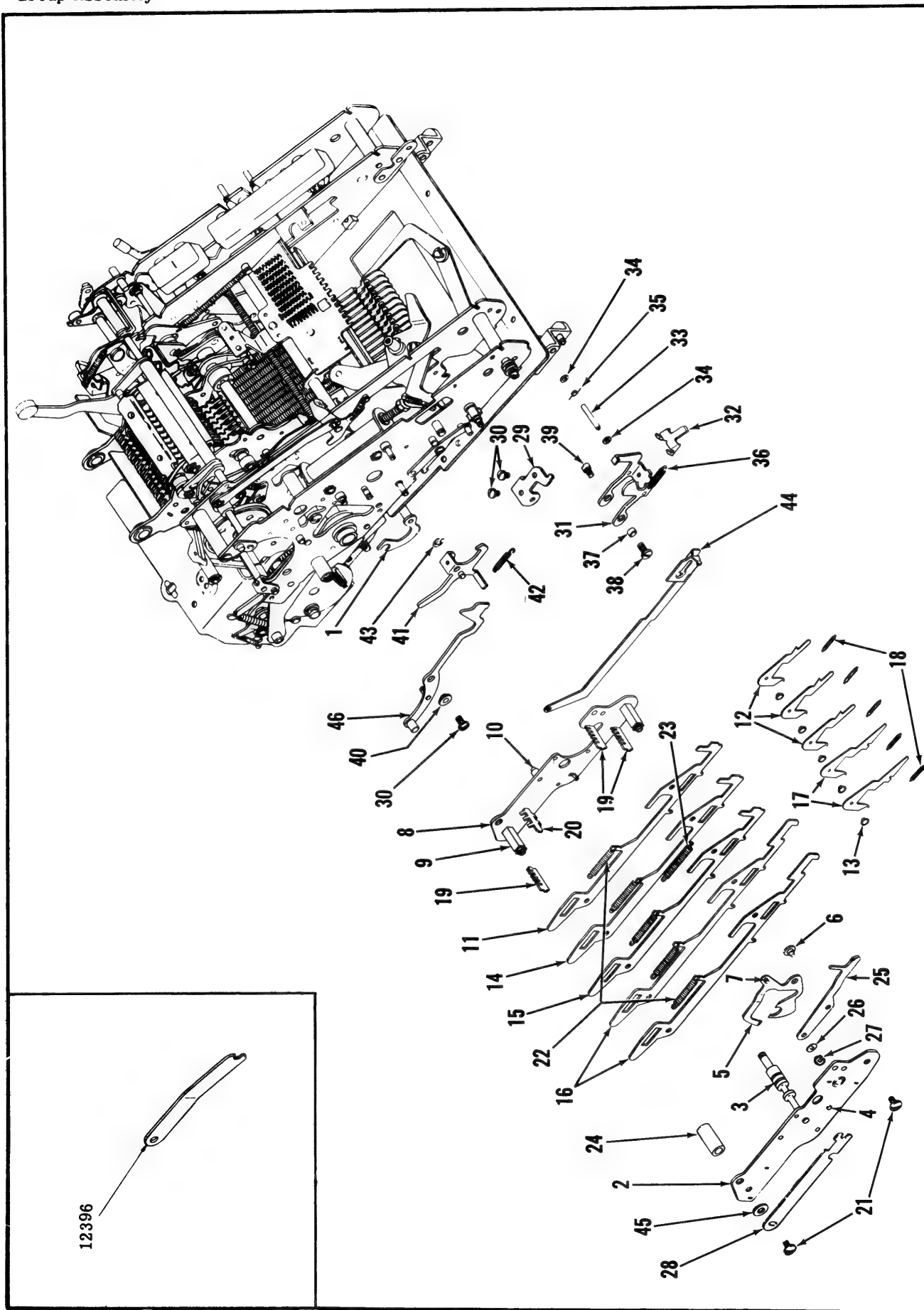


FIGURE 24

Section II
Group Assembly Parts List

May 1967

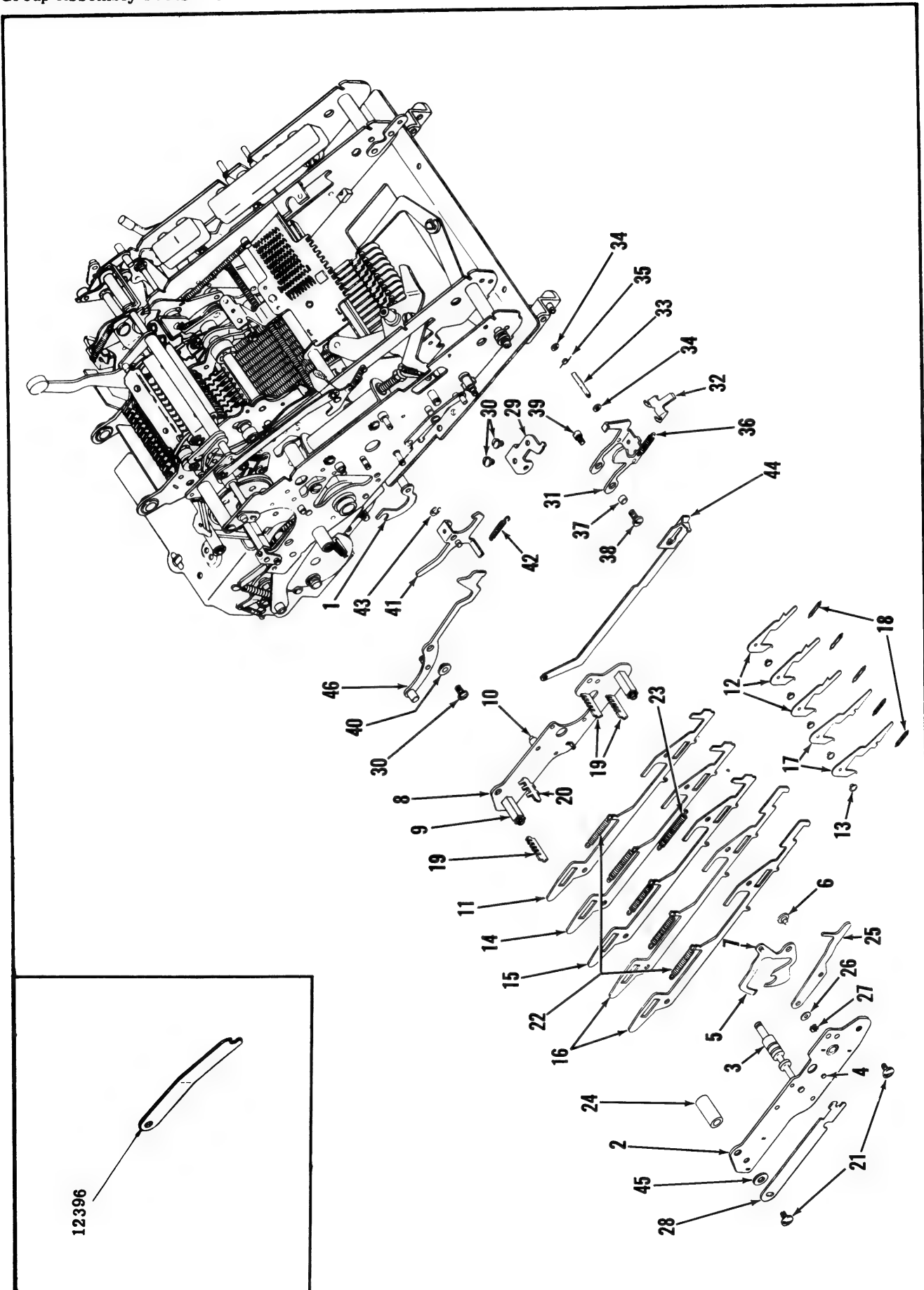


FIGURE 24

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
24-13	13480									
24 B	1-13485									
24-16	13484									
24-17	13483									
24-13	13480									
24-18	13495									
24-19	12056									
24-20	12062									
24-21	1243 $\frac{1}{2}$									
24-22	12475									
24-23	12757									
24-24 C	13110									
24-25	12131									
24-26	1420 $\frac{1}{2}$									
24-27	7017									
24-28 D	12854									
24-29	12055									
24-30	3632									
24	1-12776									
24-31	12439									
24-32	12772									
24-33	12775									
24-34	12774									
24-35	12773									
24-36	2483									
24-37	3108									
24-38	7077									
24-39	12440									
24-40	12231									
24-41	1-13101									
24-42	4351									
24-43	7018									
24-44 E	13279									
24-45	F-1832 $\frac{1}{2}$									
24-46	1-12576									
<p>B - Calculating Slide Assemblies #1-13489, #1-13487, #1-13482 and #1-13485 are used on machines above serial #1781-942.</p> <p>Calculating Slides #13275, #13274, #13273 and #13272 are used on machines between serial #1468-846 and #1781-942.</p> <p>Calculating Slides #12632, #12474, #12060 and #12061 are used on machines below serial #1468-846.</p> <p>C - Tubular Spacer #13110 is used on machines above serial #1468-846. Spacer #12168 is used on machines below this serial number.</p> <p>D - Calculating Cam Shaft Spring #12854 is used on machines above serial #1297-732. Spring #12396 (illustrated at left) is used on machines below this serial number.</p> <p>E - Calculating Count Arm Connecting Link #13279 is used on machines with Base Cover #1-13296. (A few machines between serial #1468-846 and #1581-661 using Base Cover #1-13357 and #1-12652 use a #1-13296 special.) For machines below serial #1468-846, order #12812 Link.</p>										

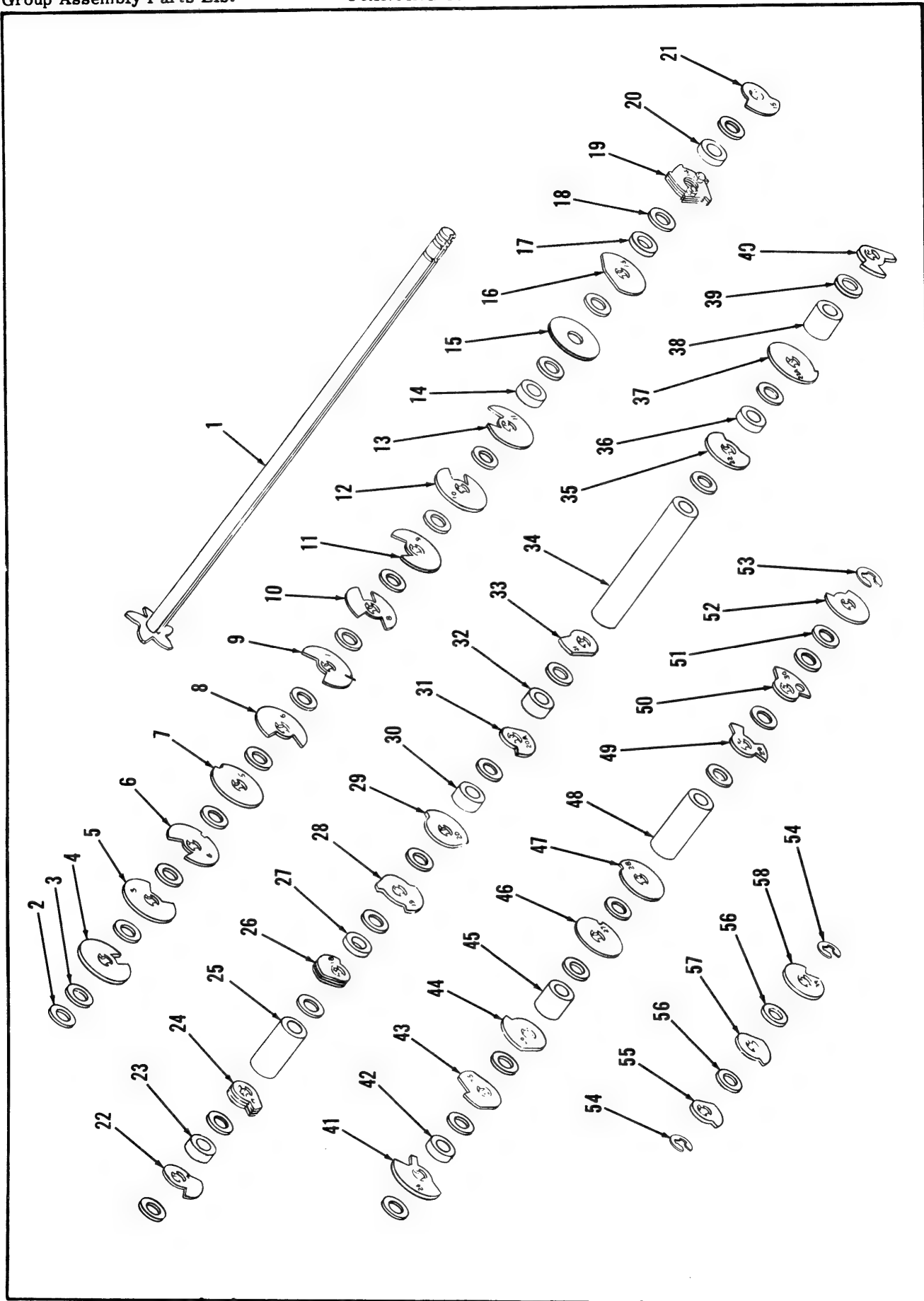


FIGURE 25

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
25 A	1-13478									1
25- 1	1-12305									1
25- 2	12373									1
25- 3	12050									1
25- 4	12791									30
25- 5	12350									1
25- 6	12351									1
25- 7	12352									1
25- 8	12353									1
25- 9	12354									1
25-10	12355									1
25-11	12356									1
25-12 B	13474									1
25-13 B	13477									1
25-14	12374									1
25-15	13042									1
25-16	12358									1
25-17	12375									1
25-18	12373									1
25-19	1-12567									1
25-20	12376									1
25-21	12359									1
25-22	12866									1
25-23	12377									1
25-24	12361									1
25-25	12378									3
25-26	12867									1
25-27	12379									3
25-28C	13374									1
25-29C	13375									1
25-30	12876									1
25-31	13026									1
25-32	12876									1
25-33	12870									1
25-34	12877									1
25-35	12871									1
25-36	12383									1
25-37	12792									1
25-38	12381									1
25-39	12387									1
25-40	12872									1
(Continued on following page)										
A - Calculating Cam Shaft #1-13478 is used on machines above serial #1781-942 or with machines using Register Disengaging Blocks on the Calculating Slides. Calculating Cam Shaft #1-13376 is used on machines below serial #1781-942.										
B - Multiplicand Clear Cam (#10) #12357 and Division Clear Cam (#11) #12529 are used in Calculating Cam Shaft #1-13376.										
C - Multiplicand Lock Plate Cam (#19) #12868 and Division Lock Plate Cam (#20) #12869 are used in Calculating Cam Shaft #1-12875.										

CUSTOM LINE
PRINTING CALCULATOR

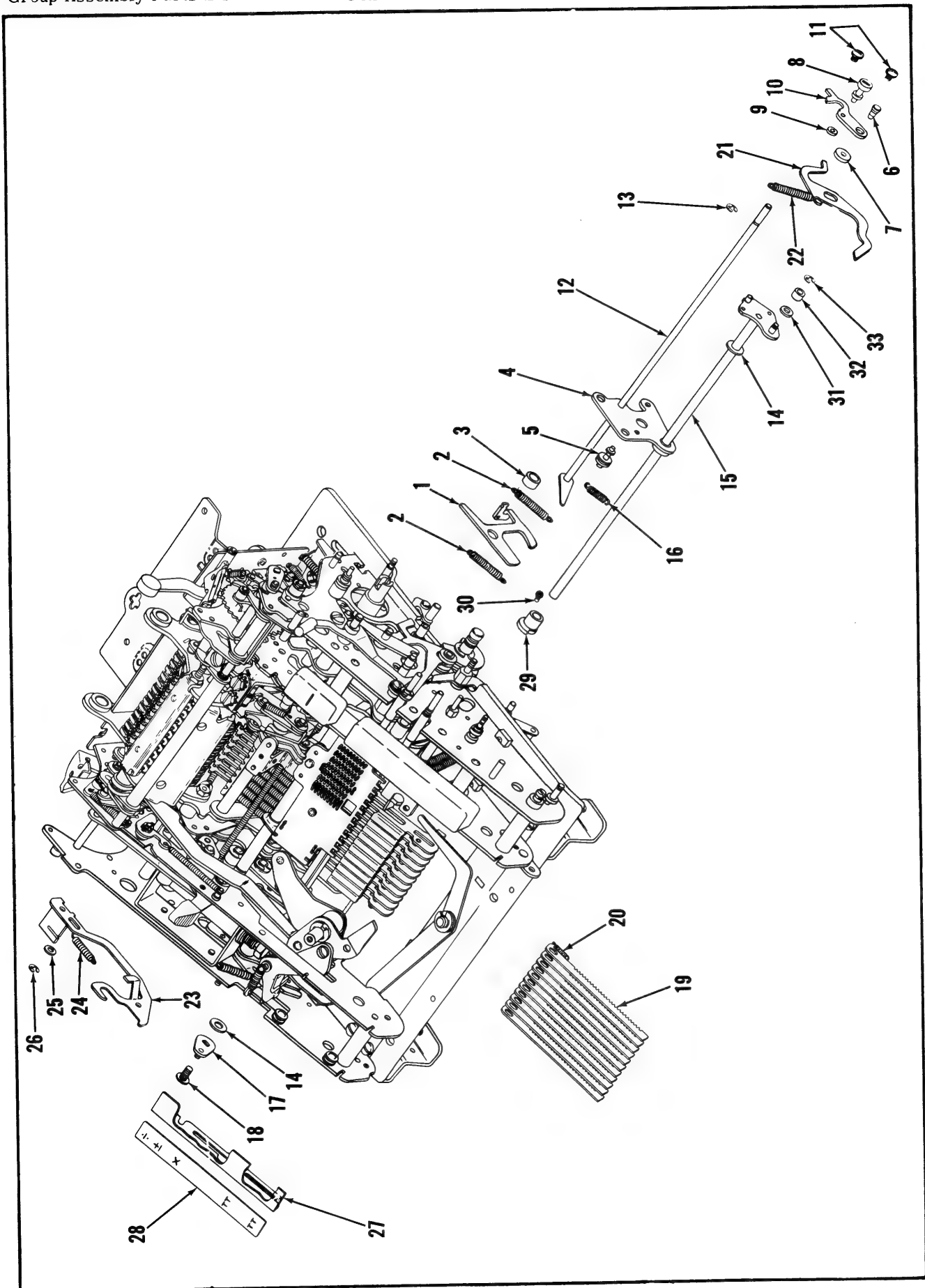


FIGURE 26

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
					(Continued from preceding page)					
25-41	12367				Cam - Non-Add (Div.) (#24)					1
25-42	12383				Spacer - Calculating Cam (.119")					1
25-43 D	12368				Cam - Keyboard Lock (Mult.) (#25)					1
25-44 D	12369				Cam - Keyboard Lock (Div.) (#26)					1
25-45	12384				Spacer - Calculating Cam (.382")					1
25-46	12207				Cam - Multiply Stop (#27)					1
25-47	12208				Cam - Division Stop (#28)					1
25-48	12385				Spacer - Calculating Cam (1.035")					1
25-49	12370				Cam - Motor Trip (Multiply) (#29)					1
25-50	12386				Cam - Motor Trip (Divide) (#30)					1
25-51	12379				Spacer - Calculating Cam (.060")					1
25-52	12895				Cam - Auto-Total (#31)					1
25-53	7020				Keeper - Spring (.250")					1
25-54	7019				Keeper - Spring (1.875")					2
25-55 E	25321				Cam - Subtract Key Latch (Mult.) (#32)					1
25-56	12050				Spacer - Calculating Cam (.015")					2
25-57 E	12874				Cam - Subtract Key Latch (Div.) (#33)					1
25-58 E	12372				Cam - Subtract (#34)					1
26- 1	12858				Cam - Motor Trip Pivot					1
26- 2	481				Spring (.500", .011" Wire)					2
26- 3	12276				Spacer - Tubular (.200")					1
26- A	1-12826				Support Assembly Complete - Right Control					1
26	1-12825 *				Support Assembly - Right Control					1
26- 4	12823 *				Support - Right Control					1
26- 5	12824				Stud - Spring					1
26- 6	12278				Rivet					1
26- 7	12279				Spacer - Flat (.062")					1
26	1-12822				Pivot Cam Assembly - Auto-Subtract					1
26- 8	12820 *				Pin - Auto-Subtract Cam Pivot					1
26- 9	12821				Washer - Auto-Subtract Cam Pivot (Eccentric)					1
26-10	12819 *				Pivot Cam - Auto-Subtract					1
26-11	12640				Screw - Binding Head (.125")					2
26-12	1-12728				Drive Link Assembly - Auto-Total					1
26-13	7017				Keeper - Spring (.125")					1
26-14	1290 $\frac{1}{4}$				Spacer - Flat (.010")					2
					(Adjustment Spacers #S-282 $\frac{1}{2}$ (.008") #1268 $\frac{1}{2}$ (.015"), #1918 $\frac{1}{2}$ (.020") and #7519 (.005") are available).					
26-15 B	1-13073				Shaft Assembly - Total Control					1
					(Continued on following page)					
A - Order #1-13125 Right Control Support Assembly for multiplier models.										
B - Total Control Shaft #1-13073 containing an Adjustment Roller, replaced Total Control Shaft #1-12743. Order Total Control Shaft #1-13073 and Total Selector #1-9266 if replacement of #1-12743 is required.										
C - Multiplicand Lock Plate Cam (#19) 12868 and Division Lock Plate Cam (#20) #12869 are used in Calculating Cam Shaft #1-12875.										
D - Keyboard Lock Cam (#25) #12368 and Keyboard Lock Cam (#26) #12369 are not individually replaceable. Replace both Cams if replacement of one is required.										
E - Subtract Key Latch Cam (#32) #25321, Subtract Key Latch Cam (#33) #12874, and Subtract Cam (#34) #12372 are not individually replaceable. Replace all three Cams if replacement of one is required.										
* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.										

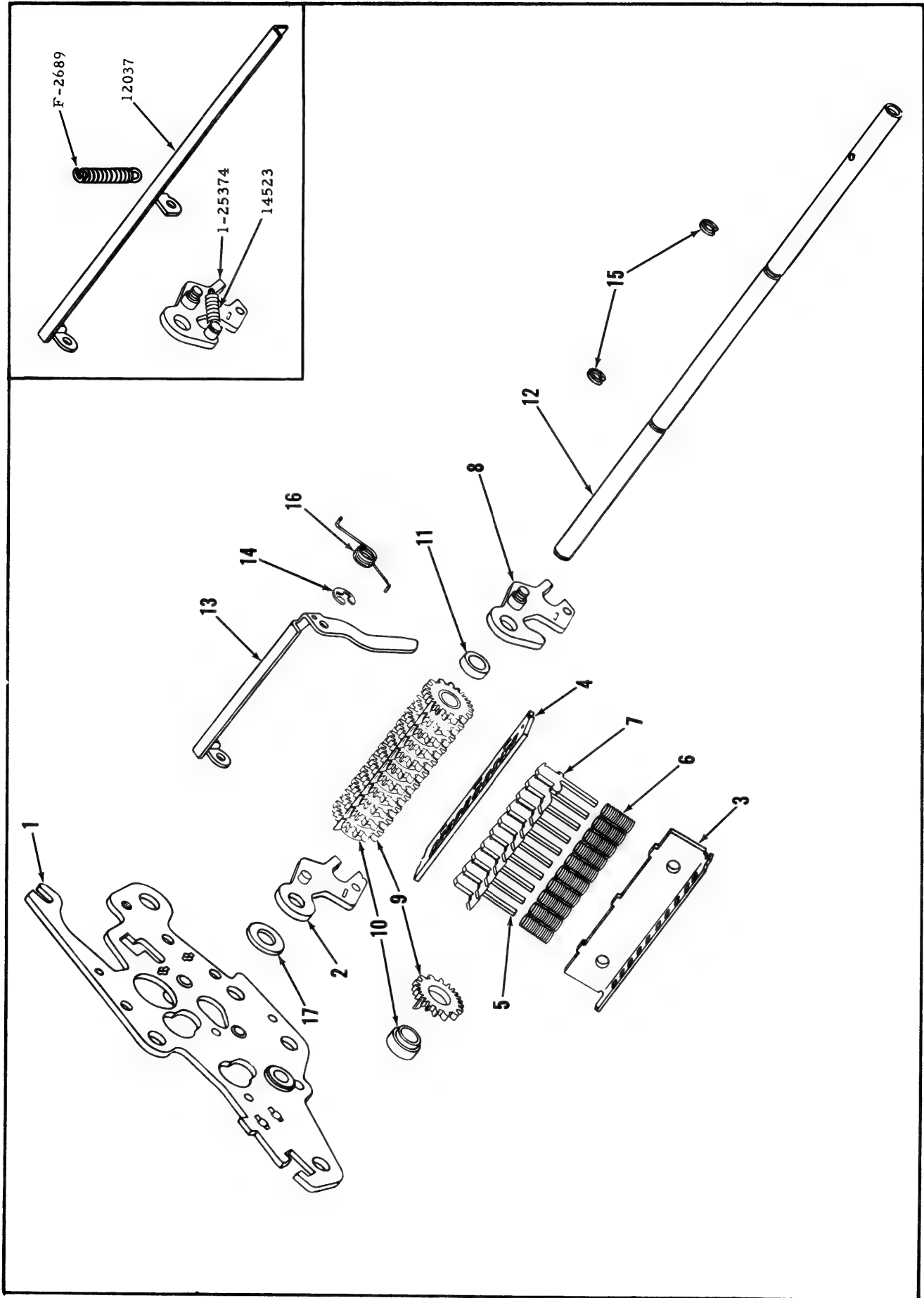


FIGURE 27

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
		(Continued from preceding page)								
26-16	253									1
26-17	1-12574									1
26-18	7077									1
26-19	12003									11
26-20	12494									11
26-21	12830									1
26-22	8103									1
26-23 C	13175									1
26-24	4734									1
26-25	12501									1
26-26	7017									1
26-27 D	1-13341									1
26-28 D	13336									1
26-29	12787									1
26-30	F-769 1/2									1
26-31	F-1832 1/2									1
26-32	9271									1
26-33	7017									1
27 A	1-13570									1
27- 1 A	1-25359									1
27 B	1-13564									1
27 E	1-6342									1
27- 2	1-25370									1
27- 3	12035									1
		(Continued on following page)								
A - Calculating Section Units #1-13570 and #1-13565 and Left Calculating Frame #1-25359 are used in machines above serial #2049-023.										
Calculating Section Units #1-13476 and #1-13473 and Left Calculating Frame #1-13472 are used in machines between serial number #1468-846 and #2049-023 or with machines using Pinned Type Register Clamps.										
Calculating Section Units #1-13182 (Calculator), #1-13183 (Multiplier) and Left Calculating Frame #1-12531 are used on machines below serial #1468-846 or machines using Screw Type Register Clamps.										
B - For machines below serial #2049-023, order #1-13535 Multiplicand (B) Register using #12037 Detent (illustrated in box)										
For Multipliers between serial #1124-396 and #1301-619, remove the #12708 Stop Key Escapement Dog Slide Release and #12700 Stop Key Escapement Dog Release Slide and its Spring #2483. For Multipliers below serial #1124-396 without "A" clear mechanism, the Over-Capacity Lug on the #1-13167 Multiplicand Gear Section Stop must be snapped off.										
C - Index Control Drive Arm Lock Slide #13175 is used on machines above serial #1387-000 or machines using Index Control Drive Arm & Link Assembly #1-13174. For machines below this serial number, order #13029 Lock Slide.										
D - For machines below serial #1532-929, order #1-13024 Identification Slide Assembly or #13023 Name Plate.										
E - For machines below serial #2049-023, order #1-6274 Divisor Stop Bracket.										

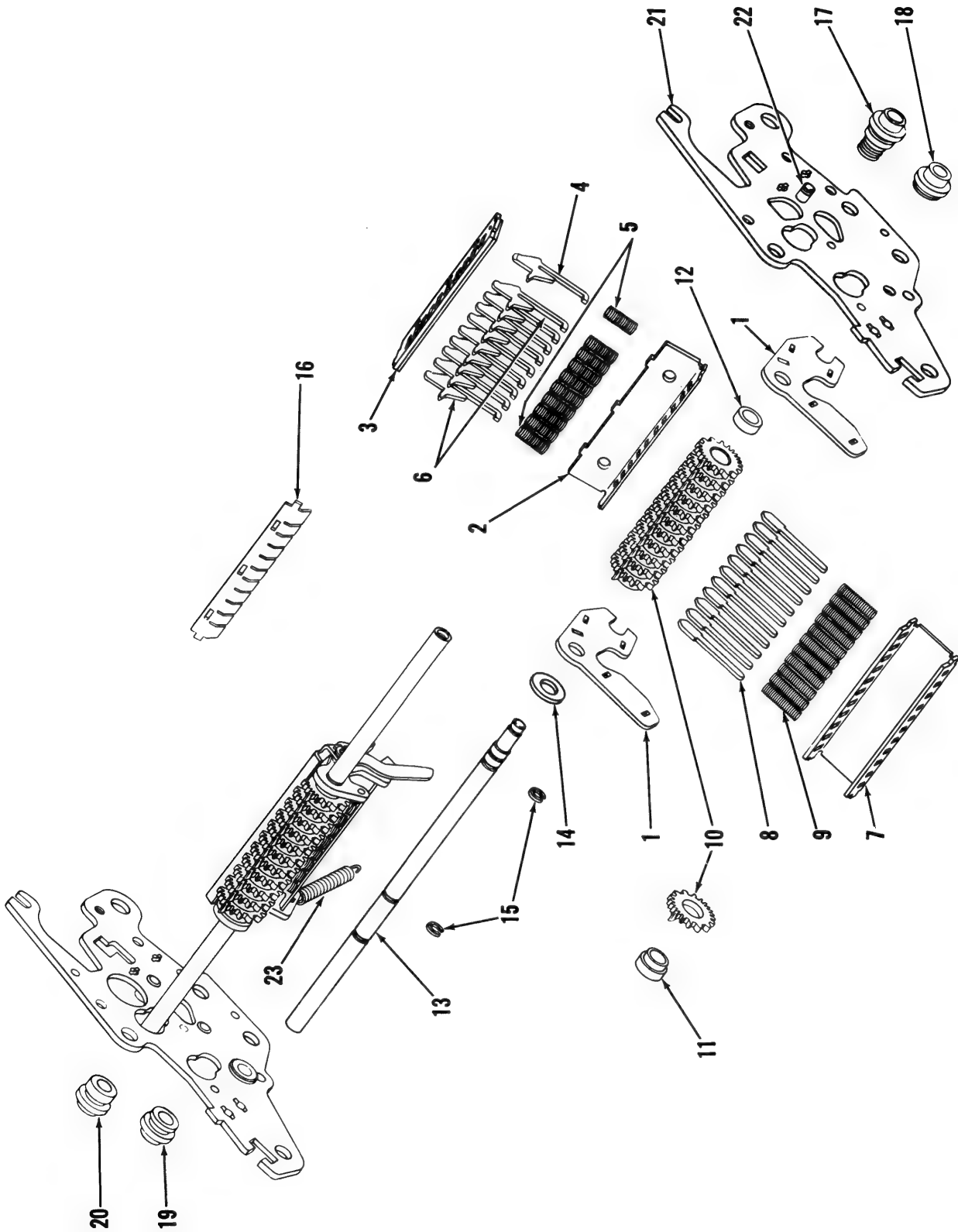


FIGURE 28

Section II

Group Assembly Parts List

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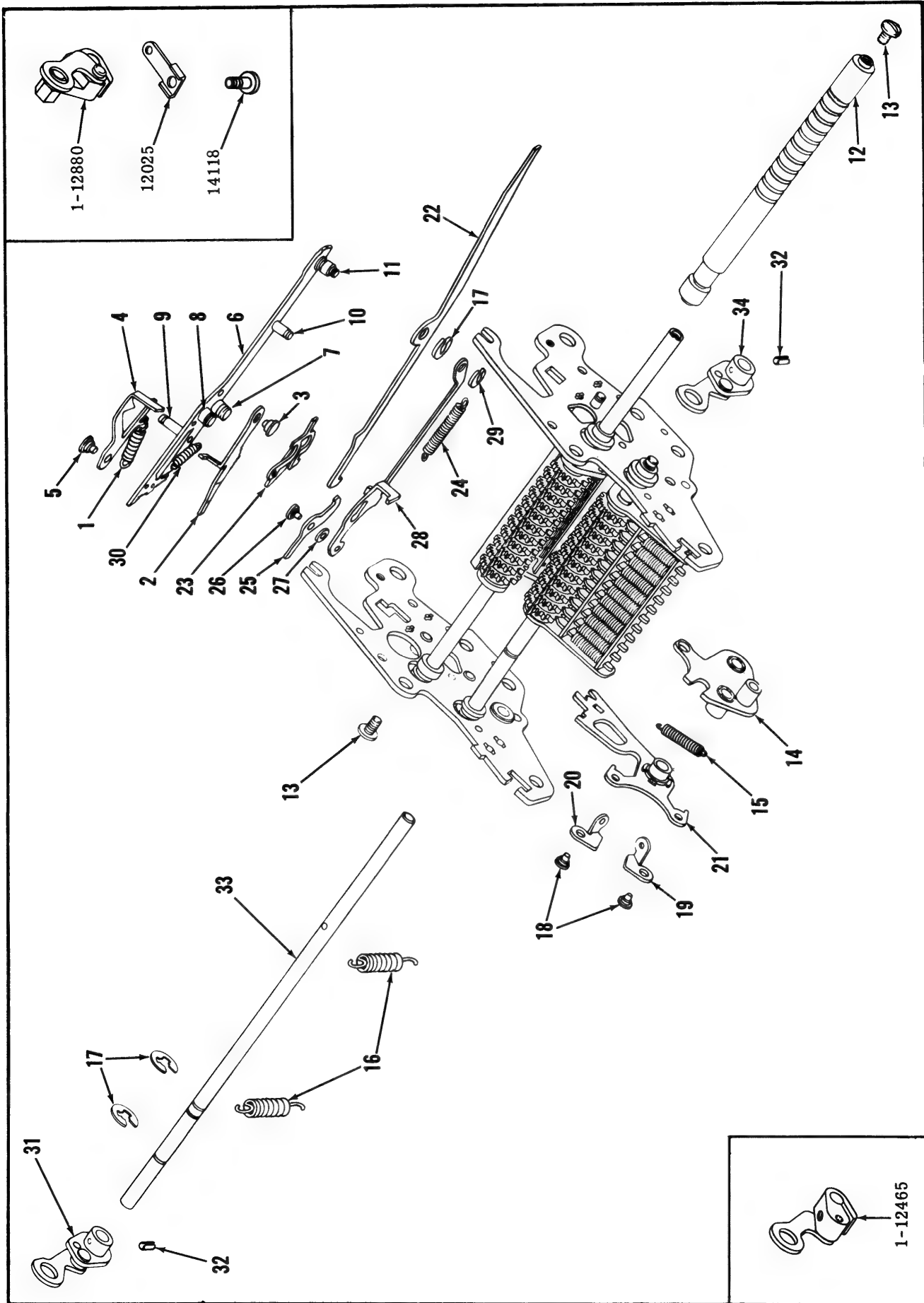


FIGURE 29

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
29- 1	5043									1
29- A	1-13145									1
29- 2	12200									1
29- 3	12201									1
29- 4 A	13144									1
29- 5	12205									1
29- 6	13142 *									1
29- 7	12702									1
29- 8	12203									1
29- 9	12218									1
29-10	8428									1
29-11	12701									1
29-12	12014									1
29-13	3632									2
29-14	1-12540									1
29-15	5511									1
29-16	25409									1
29-17	7019									3
29- A	1-25379									1
29-18	3588									2
29-19	12078									1
29-20	12077									1
29-21	1-13150 *									1
29-22	12708									1
29-23 A	1-13245									1
29-24	2483									1
29- A	1-13148									1
29-25 A	13147									1
29-26	12704									1
29-27	3962									1
29-28	12700 *									1
29-29	7017									1
29-30	4747									1
29- B	1-25269									1
29-31	1-13263 *									1
29-32	4213									2
29-33 B	25208 *									1
29-34	1-13264 *									1
<p>A - For machines between serial #2049-023 & #2321-680, order #1-25363 Add-Back Escapement Control.</p> <p>For machines below serial #2049-023, order #1-13151 Add-Back Escapement Control.</p> <p>For machines below serial #1772-784, if any one of the parts marked "A" require replacement all parts marked "A" must be replaced.</p> <p>B - Gear Pivot Shaft & Link Assembly #1-25269 can only be used on machines above serial #1468-846 or machines using pinned clamps. For machines below this serial number or machines using Screw Type Clamps, order #1-12880 (Left) or #1-12465 (Right) illustrated at left.</p> <p>For machines below serial #1468-846 or machines using Screw Type Clamps, order #12033 Shaft.</p>										
<p>*This part, or assembly, is not individually replaceable in this location. Order the next higher assembly that is replaceable.</p>										

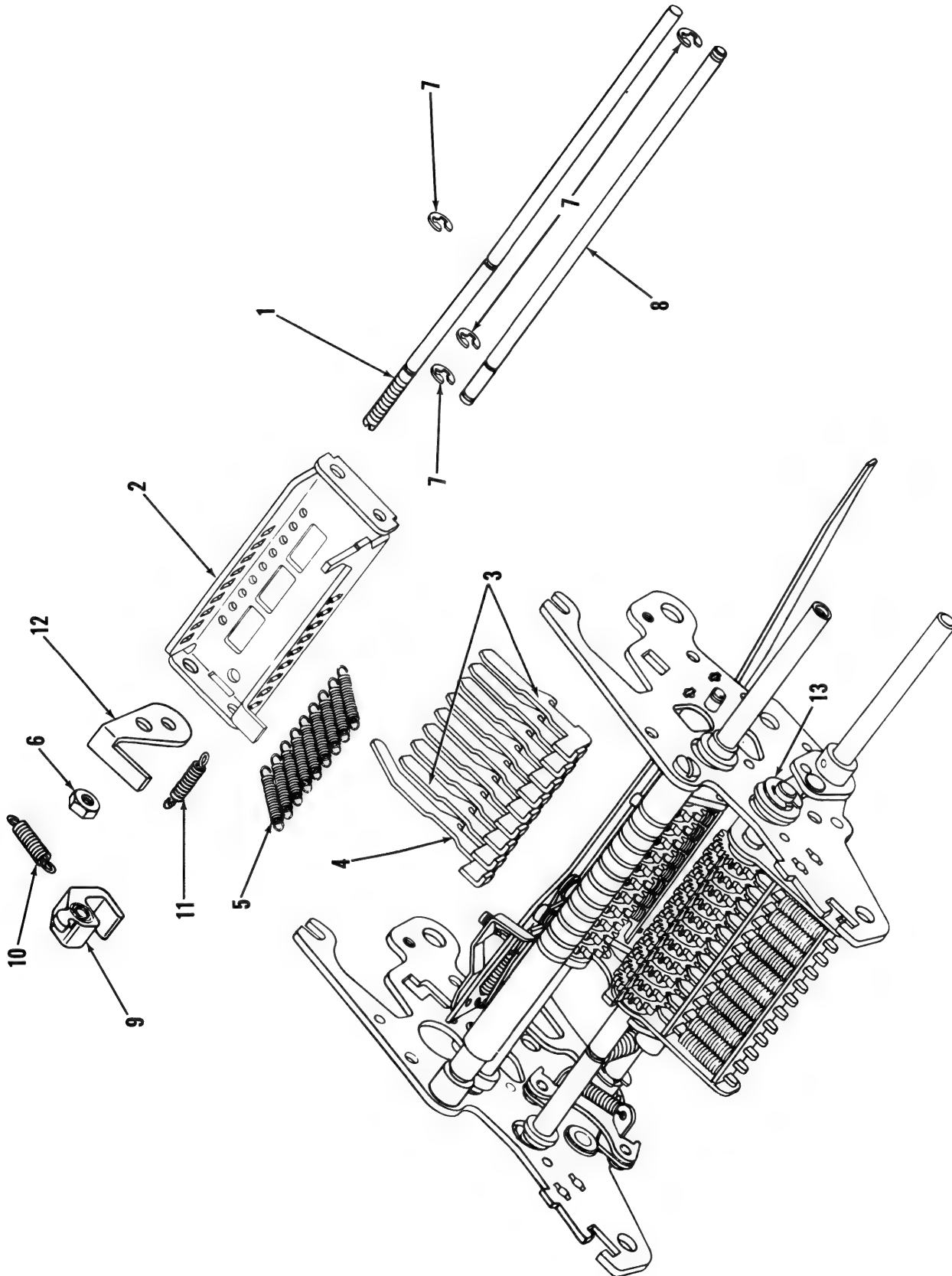


FIGURE 30

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
30- 1	12881									1
30	1-12654									1
30- 2	12215									1
30- 3	13122									8
30- 4	12886									1
30- 5	5043									9
30- 6	4226									1
30- 7	7017									4
30- 8	12027									1
30- 9 A	25377									1
30-10	9232									1
30-11	M-789									1
30-12 B	13097									1
30-13	7019									1
<p>A - For machines below serial #2049-023, order #12081 Add-Back Escapement Control Detent.</p> <p>B - Binding Head Screw #12963 is used to secure the #13097 Multiplicand Gear Section Lock to the Left Calculating Side Frame Assembly on Multiplier Models.</p>										

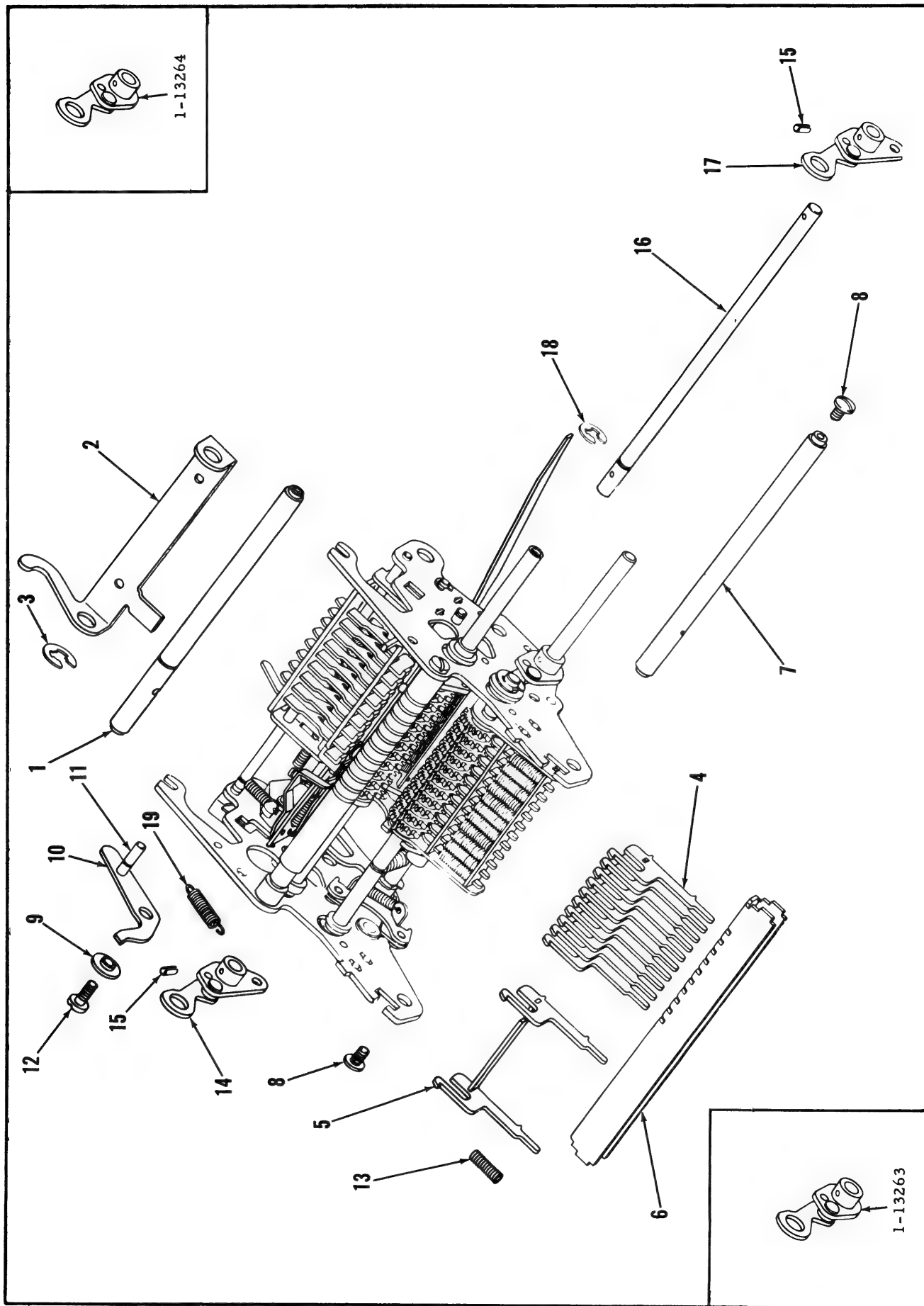


FIGURE 31

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No Req. per Assembly
		1	2	3	4	5	6	7	8	
31- 1	12048									1
31- 2	12216									1
31- 3	7020									1
31- 4	12015									10
31- 5	1-12016									1
31- 6	12013									1
31- 7	12725									1
31- 8	3632									2
31- 9	12195									1
31	1-13099									1
31-10	13098 *									1
31-11	12715									1
31-12	7077									1
31-13	13397									1
31 A	1-25368									1
31-14	1-25367 *									1
31-15	4213									2
31-16 A	13254 *									1
31-17	1-25365									1
31-18	7019									1
31-19	13378									1
<p>A - Gear Pivot Shaft & Link Assembly #1-13266 is assembled in machines between serial #1468-846 & #2049-023 or machines using #12037 "B" Register Detent. For machines below this serial number or machines using Screw Type Clamps, order #1-12880 (Left) and #1-12465 (Right), illustrated in Figure 29.</p> <p>For machines below serial #1468-846 or machines using Screw Type Clamps, order #12030 Shaft.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

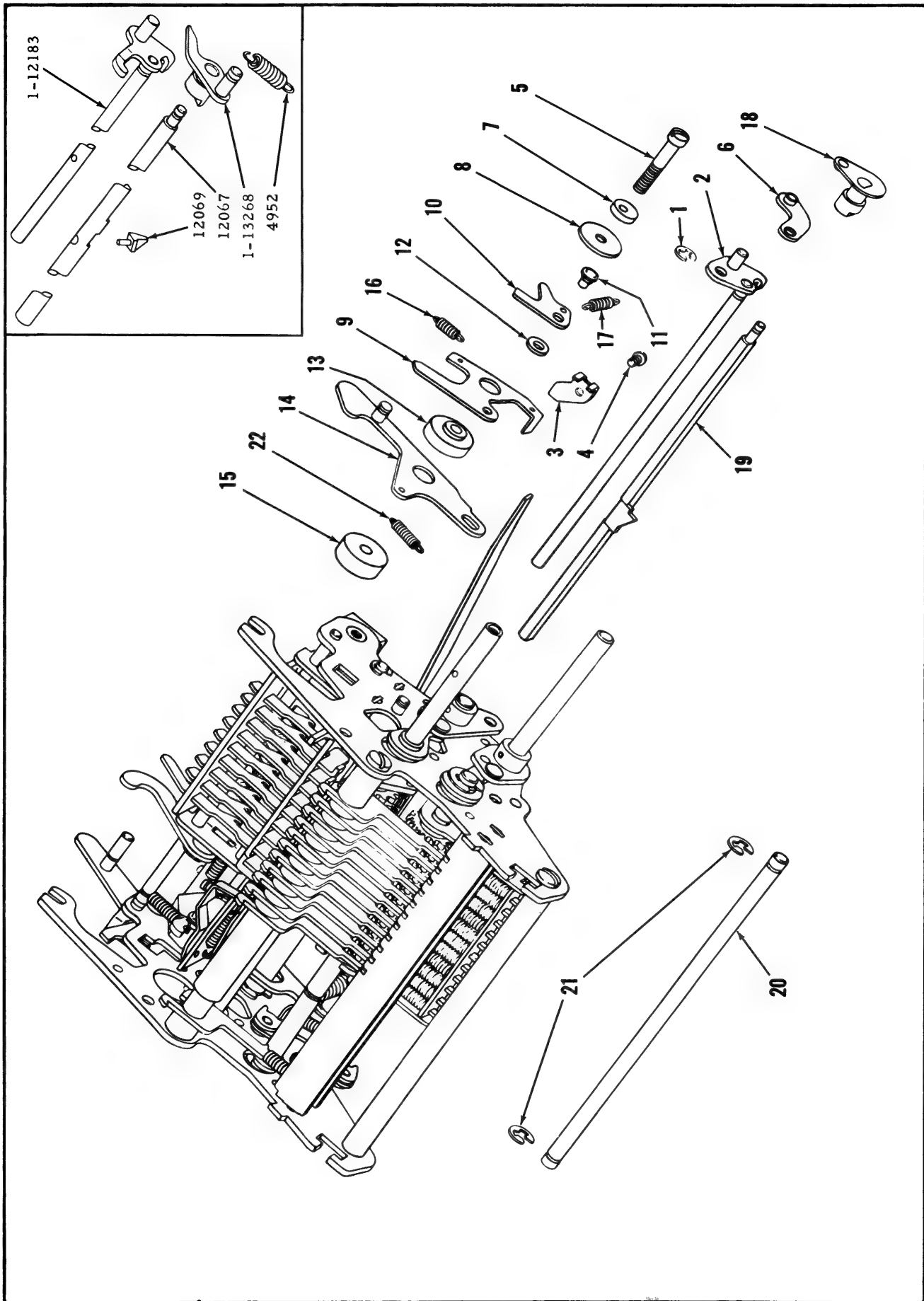


FIGURE 32

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
32- 1	7017									1
32- 2 A	1-25463									1
32- 3	12148									1
32- 4	13248									1
32- 5	12790									1
32- 6A	25460									1
32- 7	12788									1
32- 8 B	13591									1
32- 8 B	1-13594									1
32- 9 B	13593									1
32-10	12784									1
32-11	12704									1
32-12	3962									1
32-13 B	13592									1
32-14	1-12783									1
32-15	13040									1
32-15	5043									1
32-17	3547									1
32-18	1-25459									1
32-19	1-25473									1
32-20	25360									1
32-21	7018									2
32-22	3541									1
<p>A - For machines below serial #2230-895 order parts or assemblies as illustrated in box.</p> <p>B - For machines below serial #2117-723 order parts or assemblies as indicated:</p> <p>#12789 Multiplier Remainder Clear Cam Latch Pawl Washer.</p> <p>#1-12786 Multiplier Remainder Clear Cam Latch Assembly.</p> <p>#12785 Multiplier Latch.</p> <p>#13057 Restore Blank Arm Eccentric Bearing.</p>										

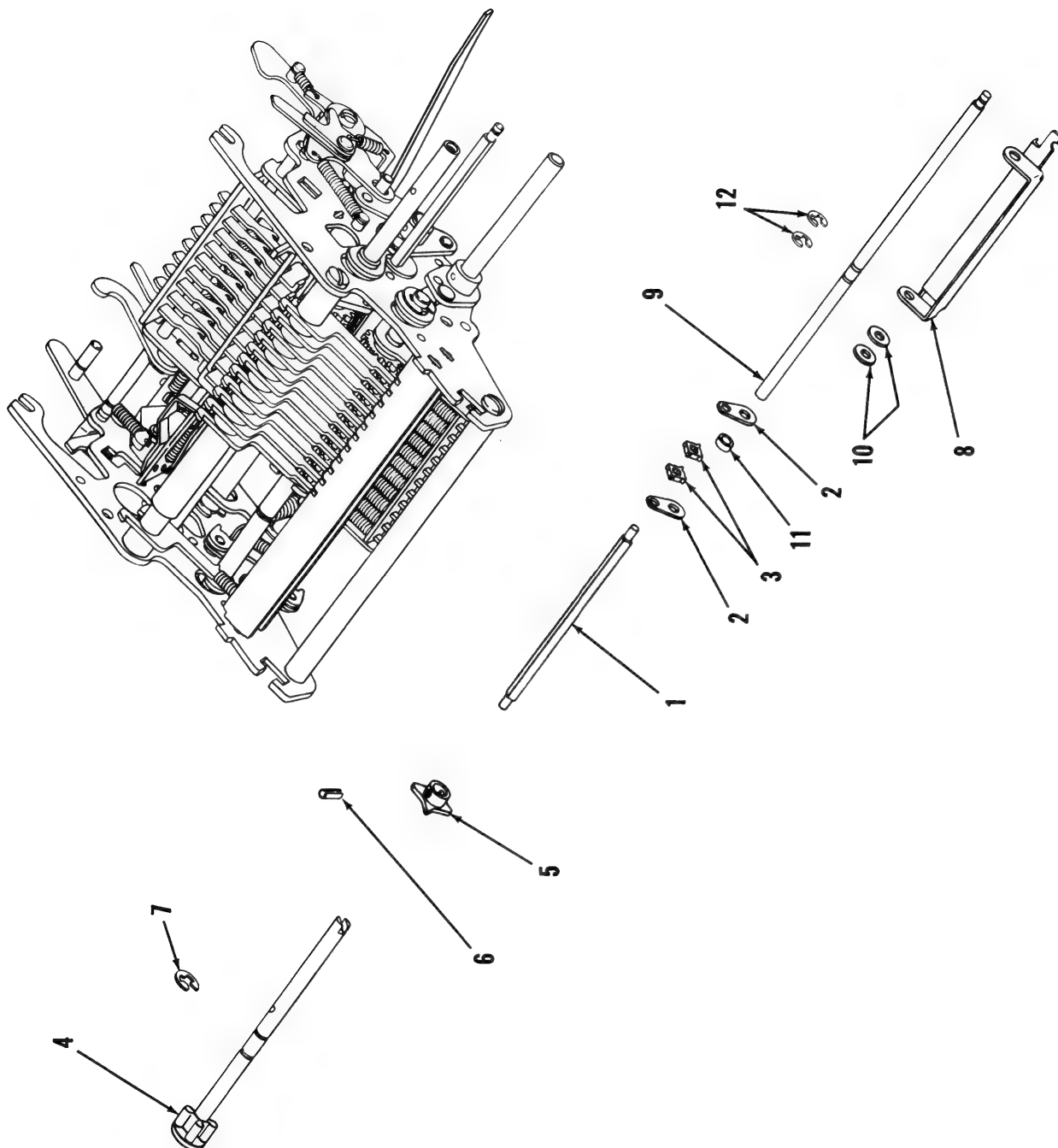


FIGURE 33

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
33- 1	12073									1
33- 2	12042									2
33- 3	12010									2
33 A	1-25357									1
33- 4	1-13567 *									1
33- 5	12079 *									1
33- 6	13241									1
33- 7	7018									1
33- 8	12859									1
33- 9	12043									1
33-10	12501									2
33-11	12345									1
33-12	7017									2
Shaft - Multiplier Index Pinion Guide - Multiplier Index Pinion Pinion - Multiplier Index Ratchet Assembly - Escapement Pawl Trip Disc Assembly Complete - Trip Ratchet Shaft Feed Ratchet - Escapement Pawl Trip Roll Pin (5/64" x 1/4") Keeper - Spring (.156") Cradle - Calculating Stop Release Shaft - Multiplier Index Pinion Guide Spacer - Flat (.008") Spacer - Tubular (.067") Keeper - Spring (.125") (Use as many #7621 Keepers as necessary in place of #7017 to insure tight fit of #12042)										
A - For machines below serial #2049-023, order #1-12075 Escapement Pawl Trip Ratchet.										
* This part, or assembly, is not individually replaceable in this location. Order the next higher assembly that is replaceable.										

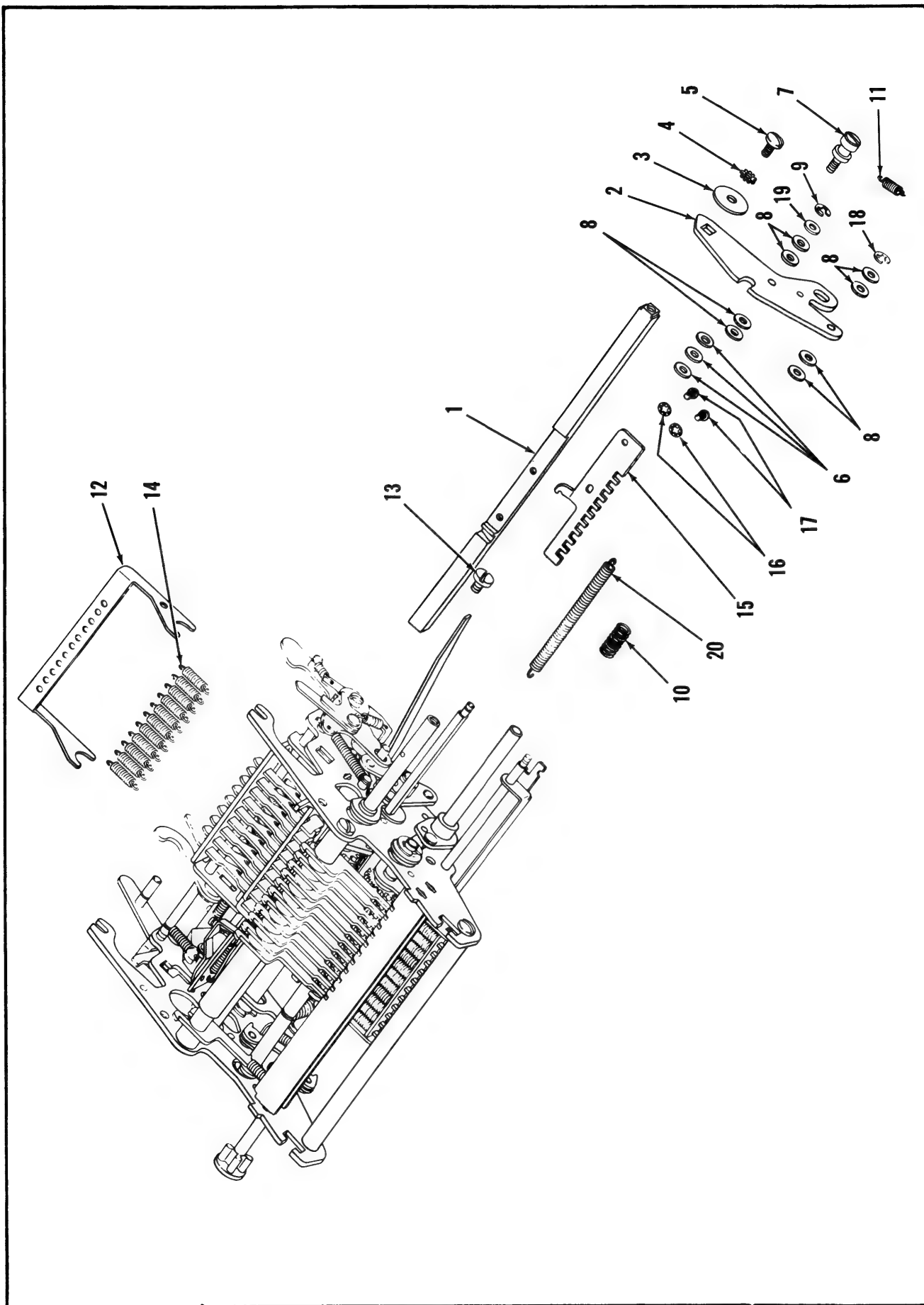


FIGURE 34

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
34- 1	12257									1
34- 2	13181									1
34- 3 A	8533									1
34- 4	13231									1
34- 5	12730									1
34- 6	12501									3
34- 7	12046									1
34- 8	12485									8
34- 9	13078									1
34-10	12860									1
34-11	4952									1
34-12 B	12206									1
34-13	1243 $\frac{1}{2}$									1
34-14 C	689									11
34-15 D	12778									1
34-16	7463									2
34-17	13248									2
34-18	12575									1
34-19	25583									1
34-20	12971									1
<p>A - Order #12779 Washer for machines below serial #1396-955.</p> <p>B - When ordering #12206 Calculating Gear Total Stop Spring Retainer for machines below serial #1263-326, also order eleven #689 Springs.</p> <p>C - Order #157 Springs for machines below serial #1263-326.</p> <p>D - Order #12209 Division Escapement Comb for Multiplier Models.</p>										

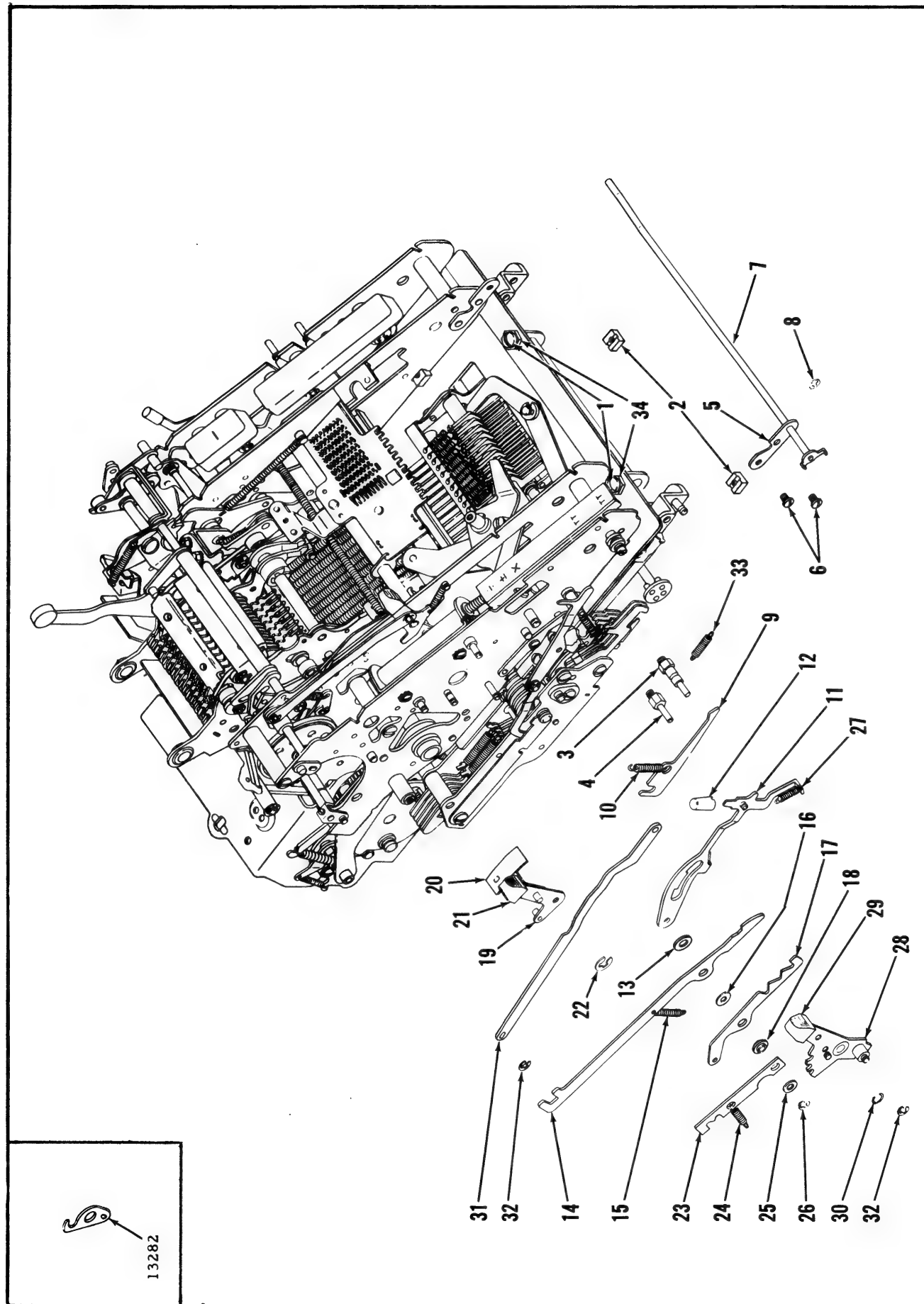


FIGURE 35

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
35- 1	6663								Screw - Binding Head (.250")	2
35- 2	5937								Nut - Special	2
35- 3 A	13563								Stud - Screw ("A" Register)	1
35- 4 A	25375								Stud - Screw ("B" Register)	1
35- 5	12104								Bracket - Auto-Total Selection Dog Shaft	1
35- 6	3781								Screw - Binding Head (.115")	2
35- 7	1-25335								Shaft Assembly - Auto-Total Selection Dog	1
35- 8	7017								Keeper - Spring (.125")	1
35- 9	12181								Locator - Multiplier Index Pinion	1
35-10	3699								Spring (.468", .014" Wire)	1
35-11 B	1-13360								Key Assembly - Total Transfer	1
35-12	13350								Button - Total Transfer (Brown) (#13009 Green)	1
35-13	1290 $\frac{1}{4}$								Spacer - Flat (.010")	1
35-14	12173								Lock - Non-Add Key	1
35-15	F3-82								Spring (.625", .010" Wire)	1
35-16	F-1832 $\frac{1}{2}$								Spacer - Flat (.018")	1
35-17	12237								Detent - Calculating Selector	1
35-18	12238								Spacer - Shoulder (Calculating Selector Detent)	1
35-19 C	1-13340								Key Assembly - Constant	1
35-20	13337								Name Plate - Adhesive ("C") (Brown) (#13017 Red)	1
35-21	13348								Button - Selection (Brown) (#12629 Green)	1
35-22	7019								Keeper - Spring (.187")	1
35-23	12244								Detent - Constant Key	1
35-24	8103								Spring (.336", .016" Wire)	1
35-25	3731								Spacer - Flat (.025")	1
35-26	7017								Keeper - Spring (.125")	1
35-27	689								Spring (.375", .013" Wire)	1
35-28	1-12798								Selector Assembly - Calculating (Multiplier #1-13124)	1
35-29	13348								Button - Selection (Brown) (#12629 Green)	1
35-30	3987								Keeper - Wire	1
35-31	12799								Arm Link - Signal Control Shaft	1
35-32	7017								Keeper - Spring (.125")	2
35-33	245								Spring (.625", .012" Wire)	1
35-34	25403								Calculator Section Lock - Eccentric	2
<p>A - Screw Studs #13563 and #25375 are used on machines above serial #1468-846 or machines using Pinned Gear Pivot Shaft & Link Assemblies. For machines below this serial number using #1-12465 and #1-12880 Gear Shaft Connecting Link Clamps, order #12852 ("A" Register) and #12853 ("B" Register).</p> <p>B - Total Transfer Key #1-13161 is used on machines above serial #1419-300. Order #1-12577 Key for machines below this serial number.</p> <p>C - Constant Key #1-13340, brown name plate is used on machines above serial #1468-846. Key #1-13193, red name plate, is used on machines between serial #1418-607 and #1468-846. For machines below serial #1418-607, order #1-13018 Key.</p>										

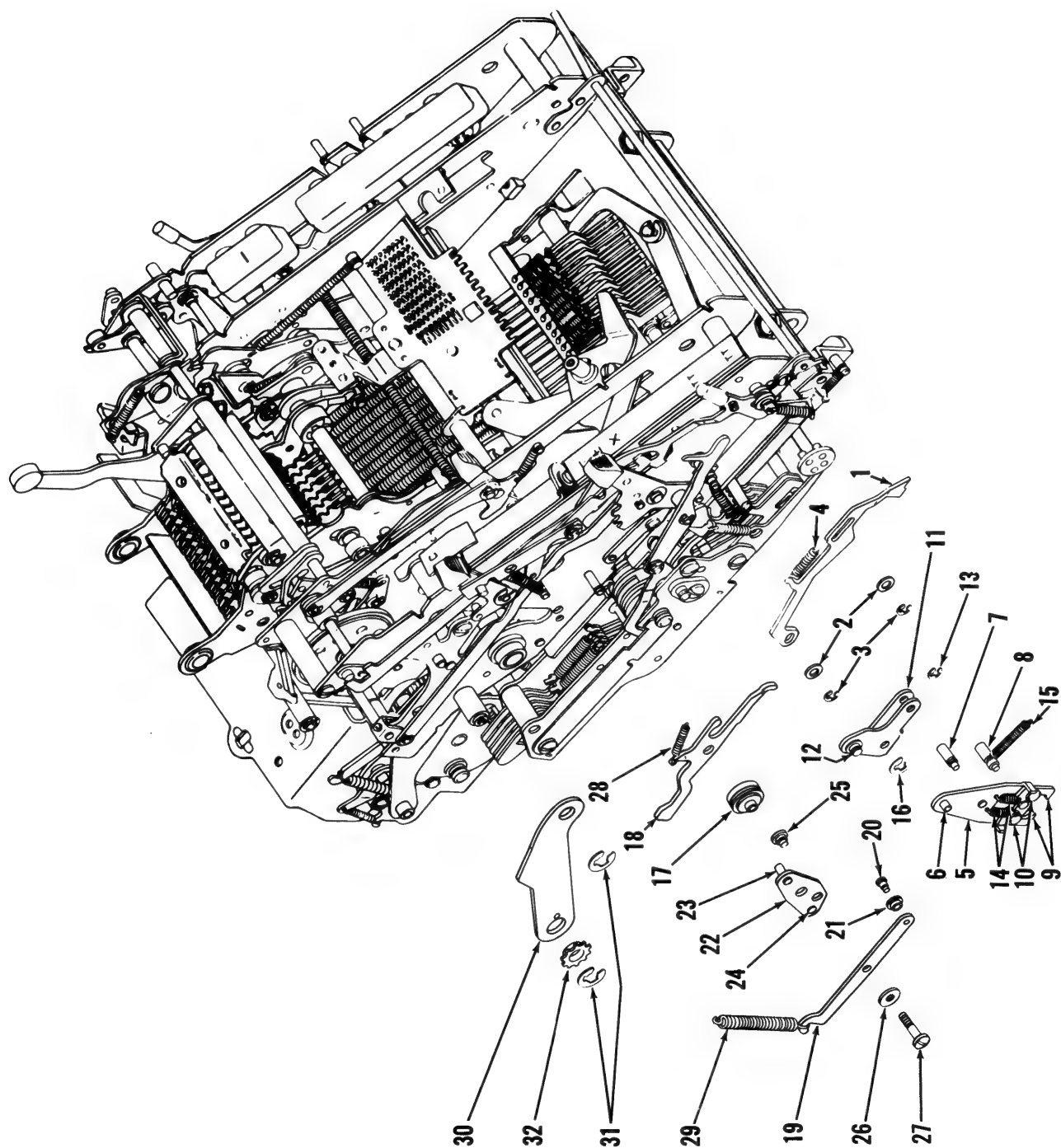


FIGURE 36

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
36- 1	13159									1
36- 2	12501									2
36- 3	7017									2
36- 4	3664									1
36	1-12667									1
36	1-12472									1
36- 5	12170									1
36- 6	2423 $\frac{1}{2}$									1
36- 7	12171									1
36- 8	12174									1
36- 9	12172									2
36-10	7396									2
36	1-12851									1
36-11	12140									1
36-12	12176									1
36-13	7017									1
36-14	12494									2
36-15	M-289									1
36-16	7019									1
36-17	12114									1
36-18	12228									1
36	1-12469									1
36-19	12115									1
36-20	12116									1
36-21	12117									1
36-22	12113									1
36-23	13169									1
36-24	4717									1
36-25	13624									1
36-26	8756									1
36-27	12182									1
36-28	481									1
36-29	12460									1
36-30 A	15658									1
36-31	7020									2
36-32 A	15657									1
<p>A - Drive Link #15658 and Eccentric Collar #15657 are used on machines above serial #1775-093 or machines using 1-15656 Motor Drive Plate. For machines below this serial number or machines using #1-12517 Motor Drive Plate, order #6175 (Short), #7047 (Standard), #7071 (Medium Long) and #7072 (Long) Drive Link.</p>										

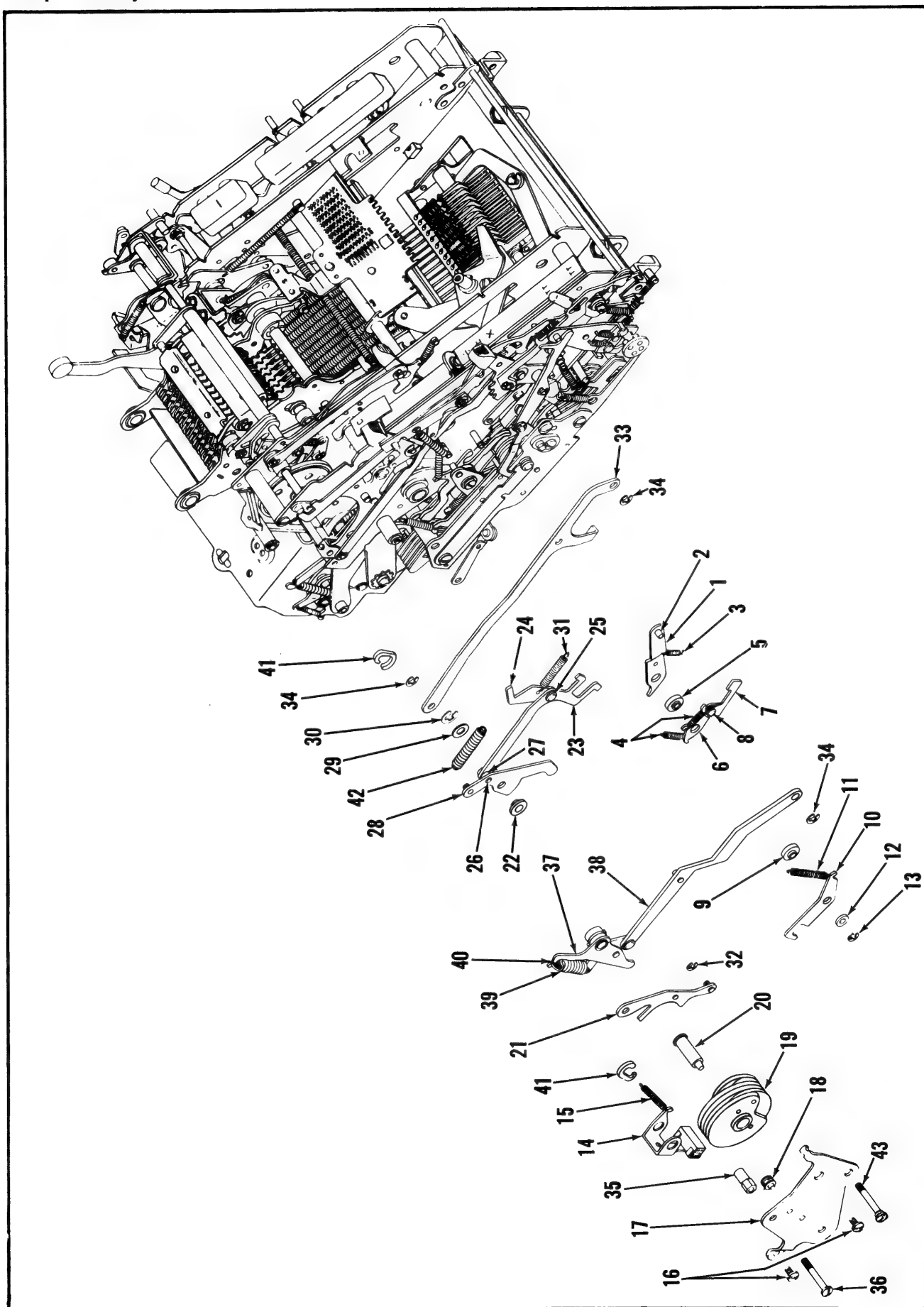


FIGURE 37

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Group Assembly Parts List											
Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
37	1-12556									Lock Assembly - Calculating Selector	1
37- 1	12132									Lock - Calculating Selector	1
37- 2	4699									Stud	1
37- 3	4952									Spring (.219", .008" Wire)	1
37- 4	5511									Spring (.203", .007" Wire)	2
37- 5	13013									Bearing - Calculating Selector Lock	1
37	1-12463									Latch Assembly - Calculating Count Arm	1
37- 6	12247									Lever - Calculating Count Cam Arm Latch Cam	1
37- 7	12246									Latch - Calculating Count Cam Arm	1
37- 8	13283									Rivet - Shoulder	1
37- 9	12135									Bearing - Constant Pivot Detent	1
37-10	12134									Detent - Constant Pivot	1
37-11	12475									Spring (.775", .019" Wire)	1
37-12	3731									Spacer - Flat (.025") (Adjustment Spacer #5965 (.025"))	1
37-13	7017									Keeper - Spring (.125")	1
37-14	1-12600									Wick Assembly	1
37-15	481									Spring (.500", .011" Wire)	1
37-16	3632									Screw - Binding Head (.281")	2
37 A	1-25275									Bracket Assembly Complete - Control Cam	1
37 A	1-13197									Bracket Assembly - Control Cam	1
37-17	12163 *									Bracket - Control Cam	1
37-18	12164 *									Stud - Control Cam Arm Guide	1
37-19	1-12488 *									Control Cam Assembly	1
37-20	12155 *									Bearing - Control Cam	1
37-21 A	1-25253									Cam Assembly - Index	1
37-22	13237									Spacer - Shoulder	1
37	1-13236									Control Lever Assembly - Constant Auto.	1
37-23	12239									Lever - Constant Auto Control	1
37-24	12242									Detent - Constant Auto	1
37-25	S-879 1/2-1									Rivet - Shoulder	1
37-26	12240									Rivet - Shoulder	1
37-27	12241									Spacer - Tubular (.115")	1
37-28	1-13235									Arm Assembly - Calculating Count Cam	1
(Continued on following page)											
A - Control Cam Bracket Assembly Complete #1-25275 is used on machines above serial #1890-146.											
Index Cam Assembly #1-25253 is used on machines above serial #1890-146.											
To replace Control Cam Bracket Assembly Complete or component parts, order as indicated below.											
If machine is below serial #1387-000, order #1-25275 Control Cam Bracket Complete and #1-25256 Index Control Drive Arm & Link Complete.											
If machine is between serial #1387-000 and #1435-958, order #1-25275 Control Cam Bracket Complete and #1-25255 Index Control Drive Arm & Link, or #25254 Index Cam Link and #12187 Rivet.											
If machine is between serial #1435-958 and #1890-146, order #1-25275 Control Cam Bracket Complete, or #1-13197 Control Cam Bracket and #1-25255 Index Control Drive Arm and Link, or #25254 Index Cam Link and #12187 Rivet.											
* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.											

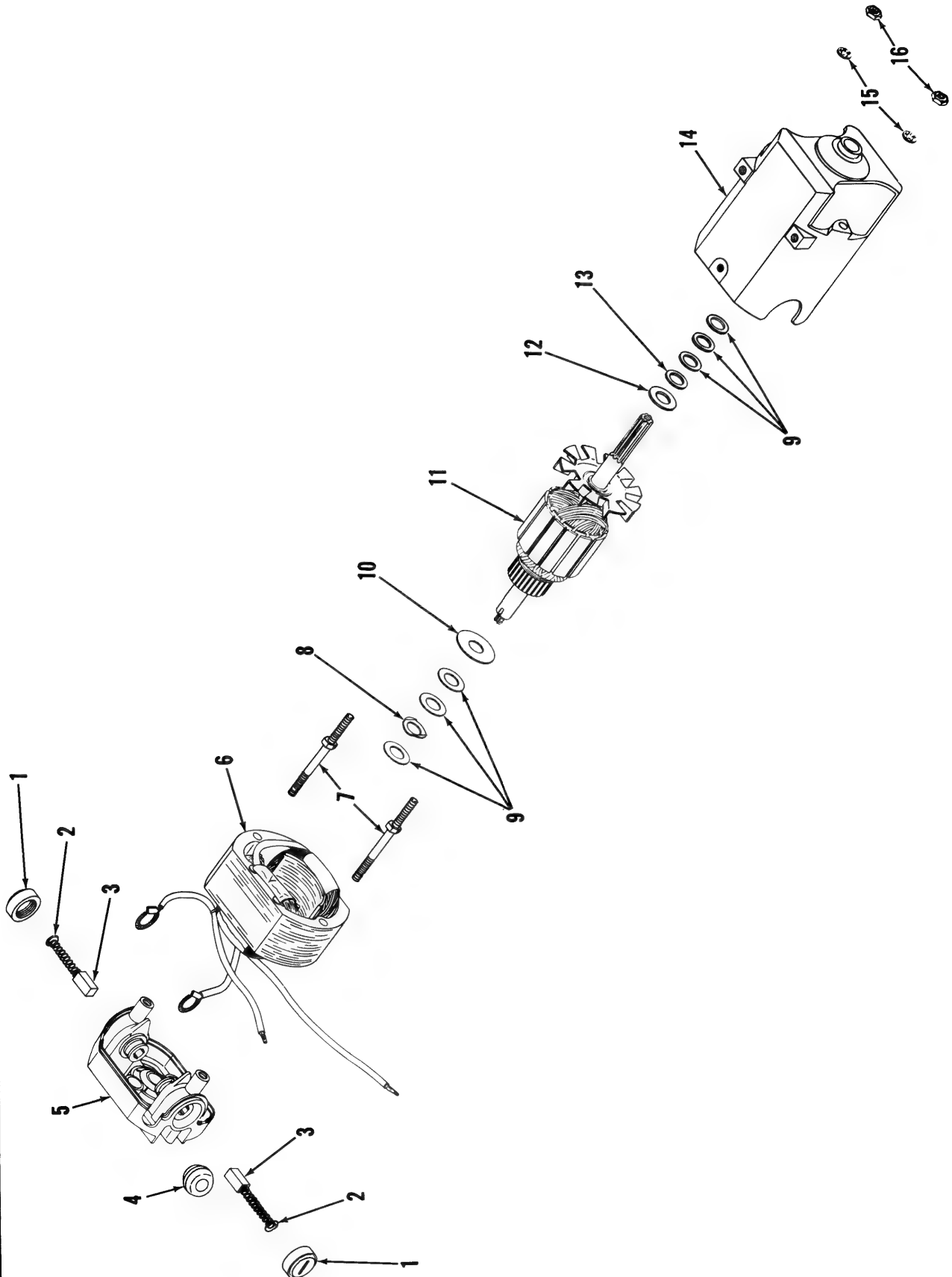


FIGURE 38

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
37-29	11307								(Continued from preceding page) Spacer - Flat (.042") Adjustment Spacers S-282 $\frac{1}{2}$ (.008") 1290 $\frac{1}{4}$ (.010") 1268 $\frac{1}{2}$ (.015") 3925 (.020") 5617 (.030")	AR AR AR AR AR
37-30	7019								Keeper - Spring (.1875") (Adjustment Keepers #5781 and #5782)	1
37-31	587								Spring (.343", .012" Wire)	1
37-32	7017								Keeper - Spring (.125")	1
37-33	12811								Link - Calculating Count Cam Arm	1
37-34	7018								Keeper - Spring (.156")	3
37-35	12167								Bearing - Total Control Cam Arm Eccentric	1
37-36	12486								Screw - Binding Head (.812")	1
37	1-13538								Arm Assembly Complete - Total Control Cam	1
37-37	1-13190								Arm Assembly - Auto-Total Drive	1
37-38	1-13537								Yield & Arm Assembly - Auto-Total Drive	1
37-39	9094								Spring (.605", .055" Wire)	1
37-40	3455								Spring (.687", .024" Wire)	1
37-41	12268								Retainer - Spring	2
37-42	13045								Spring (1.105", .026" Wire)	1
37-43	13111								Screw - Shoulder (.880")	1
38 A	1-13552-1								Motor and Governor Assembly Complete (115 Volt)	1
38- 1	6306								Cap - Brush Holder (#6355, Singer)	2
38- 2	6305								Spring - Armature Brush	2
38- 3	6304								Brush - Armature (#1-6356, Singer)	2
38- 4	6316								Grommet - Rubber	1
38- 5	6317								Housing - Governor End	1
38- 6 B	1-6303								Field Assembly (#1-6358, Singer)	1
38- 7	6318								Screw - Housing Fastener	2
38- 8	6319								Spacer - Spring	1
38- 9	6320								Spacer - Flat	AR
38-10	6321								Spacer - Fibre	1
38-11 C	1-6302								Armature Assembly (#1-6357, Singer)	1
38-12	6324								Spacer - Flat	1
38-13	6323								Spacer - Flat	1
38-14	1-6341								Housing - Pinion End	1
38-15	6326								Lockwasher	2
38-16	6327								Nut - Hex	2
Parts List in brackets are used in Singer Motor. All other parts are used in Howard Motor.										
For 230 Volt Howard Motor order the following part or assemblies as indicated:										
A - 1-7946-2 Motor and Governor Assembly Complete.										
B - 1-6328 Field Assembly.										
C - 1-6329 Armature Assembly.										

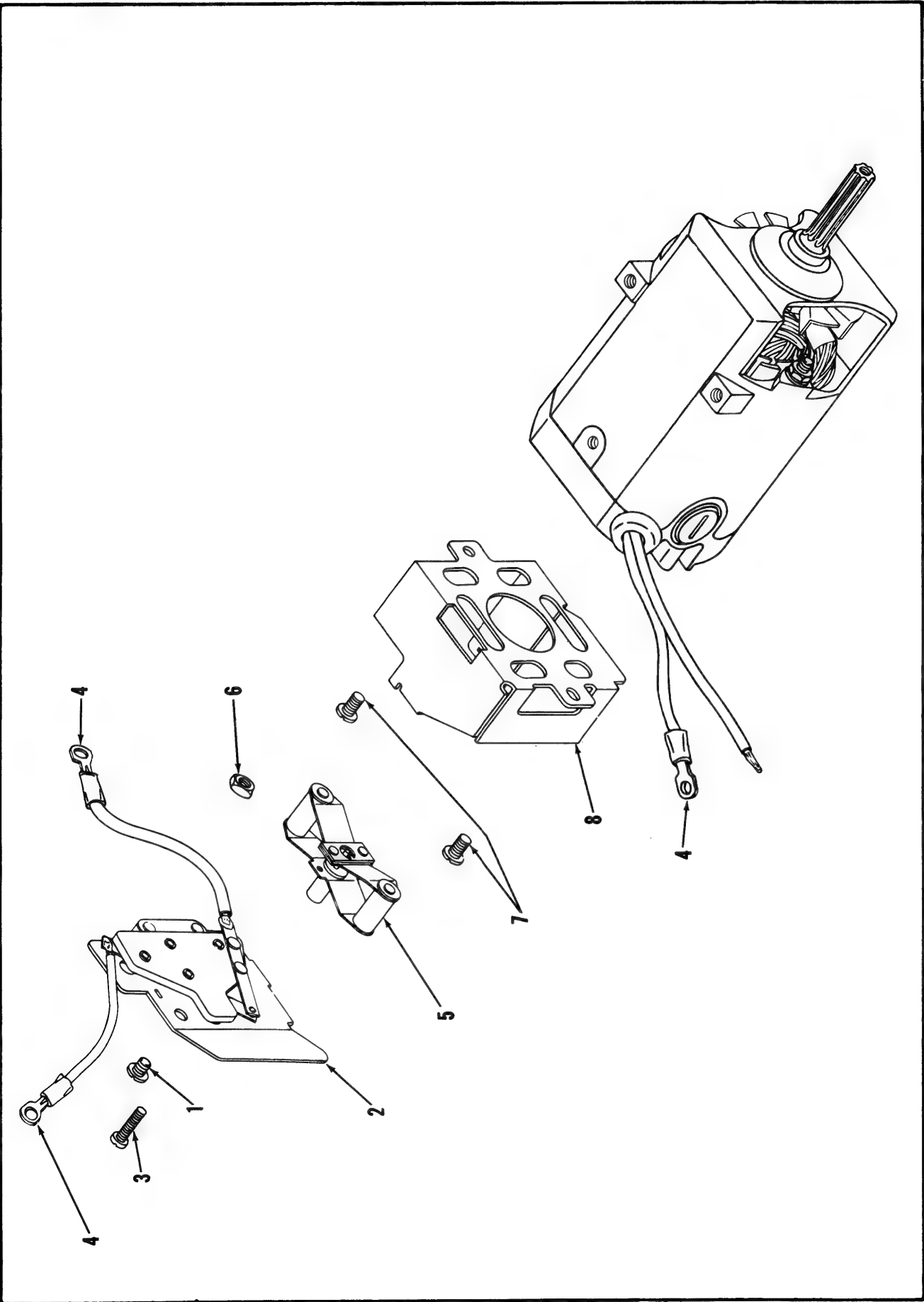
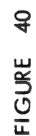


FIGURE 39

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
39- 1	2267									1
39- 2	1-9557									1
39- 3	9555									1
39- 4	9512									2
39- 5	1-9564									1
39- 6	2652									1
39- 7	6940									2
39- 8	9590									1



CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
40- 1(a)	13035				Resistor					1
40	1-8887				Capacitor and Switch Points Assembly					1
40- 2	9574				Capacitor					1
40- 3	6573				Pin - Dowell					2
40- 4	6571				Insulator - Contact Finger					2
40- 5	1-6712				Finger Assembly - Contact					2
40- 6	7998				Spacer - Contact Finger					1
40- 7	6965				Insulator - Contact Finger					1
40- 8	8487				Insulator - Switch Holder					1
40- 9	6567				Holder - Switch					1
40-10	7077				Screw - Binding Head					2
40-11	2509				Lockwasher					2
40-12	S-963				Nut - Hex					2
40-13	3421				Screw - Binding Head (.218")					3
40-14	7899				Washer - Internal Toothlock					3
40-15(b)	1-8842				Plug Assembly - Base					1
†	1-9366				Filter - Noise (Not Illustrated)					1
For 230 Volt Motor, order part or assembly as indicated										
(a)	#7229				Resistor					
(b)	#1-9592				Base Plug Assembly					
† #1-9366 Noise Filter available for 115 Volt and 230 Volt Motor.										

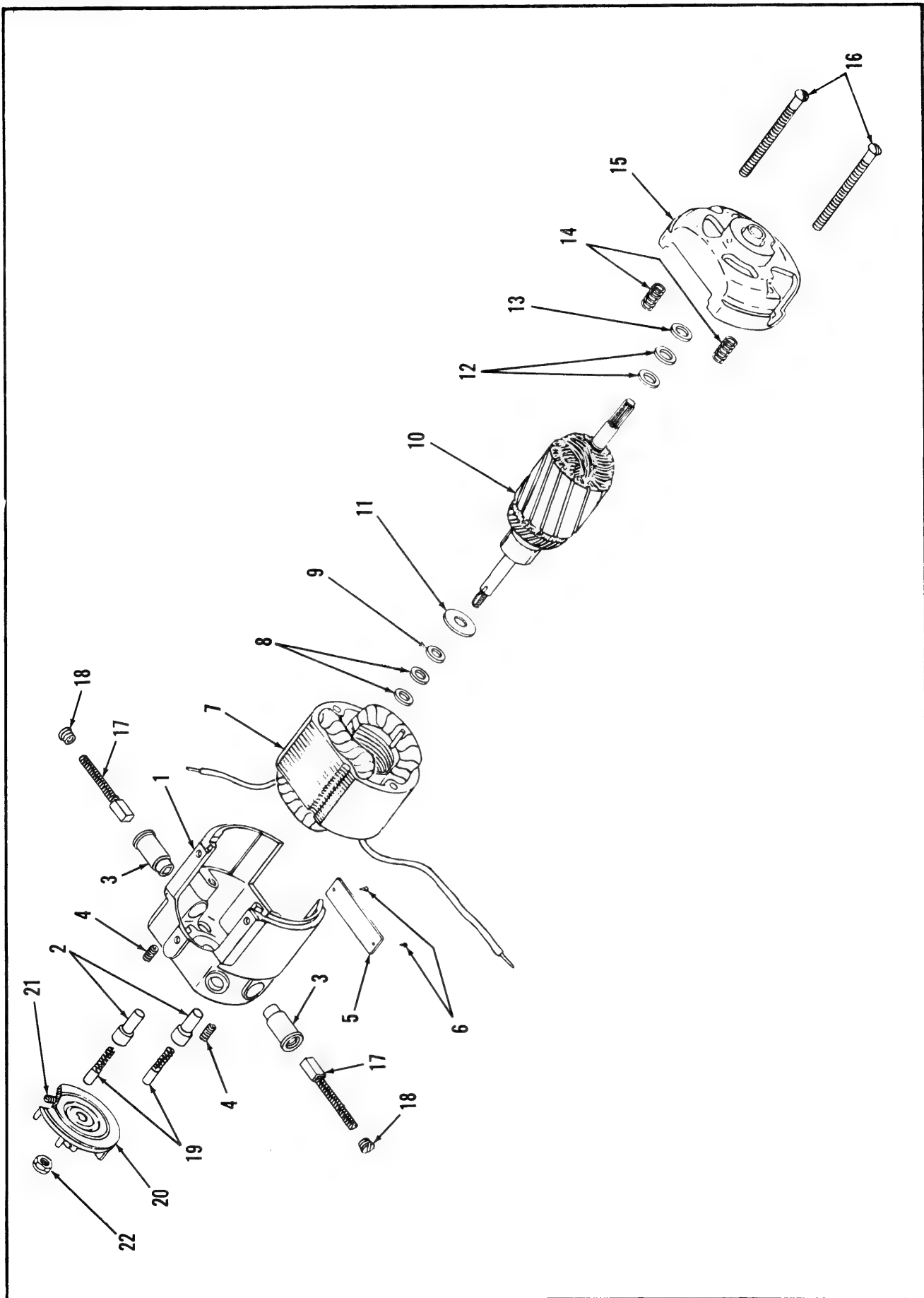


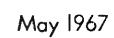
FIGURE 41

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
41	1-8888									1
41	1-7625 *									1
41- 1	1-6163									1
41- 2	1-6164									2
41- 3	1-6166									2
41- 4	6165									2
41- 5	6169									1
41- 6	6171									2
41- 7	1-6156									1
41- 8	6153									2
41- 9	6152									1
41-10	1-6154									1
41-11	6168									1
41-12	6159									2
41-13	6158									1
41-14	6162									2
41-15	1-6160									1
41-16	6161									2
41-17	1-6181									2
41-18	6167									2
41-19	18529									2
41-20	1-7266									1
41-21	6938									1
41-22	7267									1

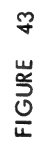
* This part, or assembly, is not individually replaceable in this location. Order next higher part or assembly that is replaceable.



CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
42- 1	9512								Terminal - Insulated Wire	2
42- 2	1-8842								Plug Assembly - Base	1
42	1-8887								Capacitor Unit Complete	1
42- 3	9574								Capacitor Unit (With 5 Wires)	1
42- 4	7225								Tubing Insulation	1
42- 5	1-6712								Contact Finger Assembly	2
42- 6	6571								Insulator - Contact Finger (.063" Micarta)	2
42- 7	6965								Insulator - Contact Finger (.049" Micarta)	1
42- 8	6957								Spacer - Contact Finger (.062" Micarta)	1
42- 9	6573								Pin - Dowel (Switch)	2
42-10	8487								Insulator - Switch Holder	1
42-11	6567								Holder - Switch	1
42-12	13035								Resistor	1
42-13	7077								Screw - Binding Head (.250")	2
42-14	2509								Washer - External Tooth Lock	2
42-15	S-963								Nut - Hex (.312")	2
42-16	9533								Screw - Binding Head (.218")	3
N O T E:										
The 230 Volt Bodine Motor is identical in every respect to the 115 Volt Motor listed in Figure 38 and 39 except for the following:										
230 Volt Replacement for 115 Volt Part		Equivalent 115 Volt Part				Figure and Index				
1-8892		1-8888				41				
1-6157		1-6156				41- 7				
1-6155		1-6154				41-10				
7229		13035				41-13				
1-9515		1-8887				40				



CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
43	1-25632									1
43- 1	1-8092									1
43- 2	4789									1
43- 3	4793									1
43- 4	2363 $\frac{1}{2}$									2
43- 5	641 $\frac{1}{2}$									1
43- 6	4783									1
43- 7	6895									1
43- 8	8089									1
43- 9	5054									1
43-10	8481 *									1
43-11	8090 *									1
43-12	9288									1
43-13	8106									1
43-14	1-8098									1
43-15	8089									1
43-16	2509									1
43-17	S-963									1
43-18	8479									1
43-19	8108									1
43-20	8971									1
43-21	8099									2
43-22	8107									1
43-23	888									1
43-24	1-8097									1
43-25	6917									1
43-26	6918									1
43-27	8093									1
43-28	689									2
43-29	157									1
43-30	3547									1
43-31	8478									1
43-32	3540									1
43-33	7017									1
43-34	1-8088									1
43-35	4181									2
43-36	1-8577									1

* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.

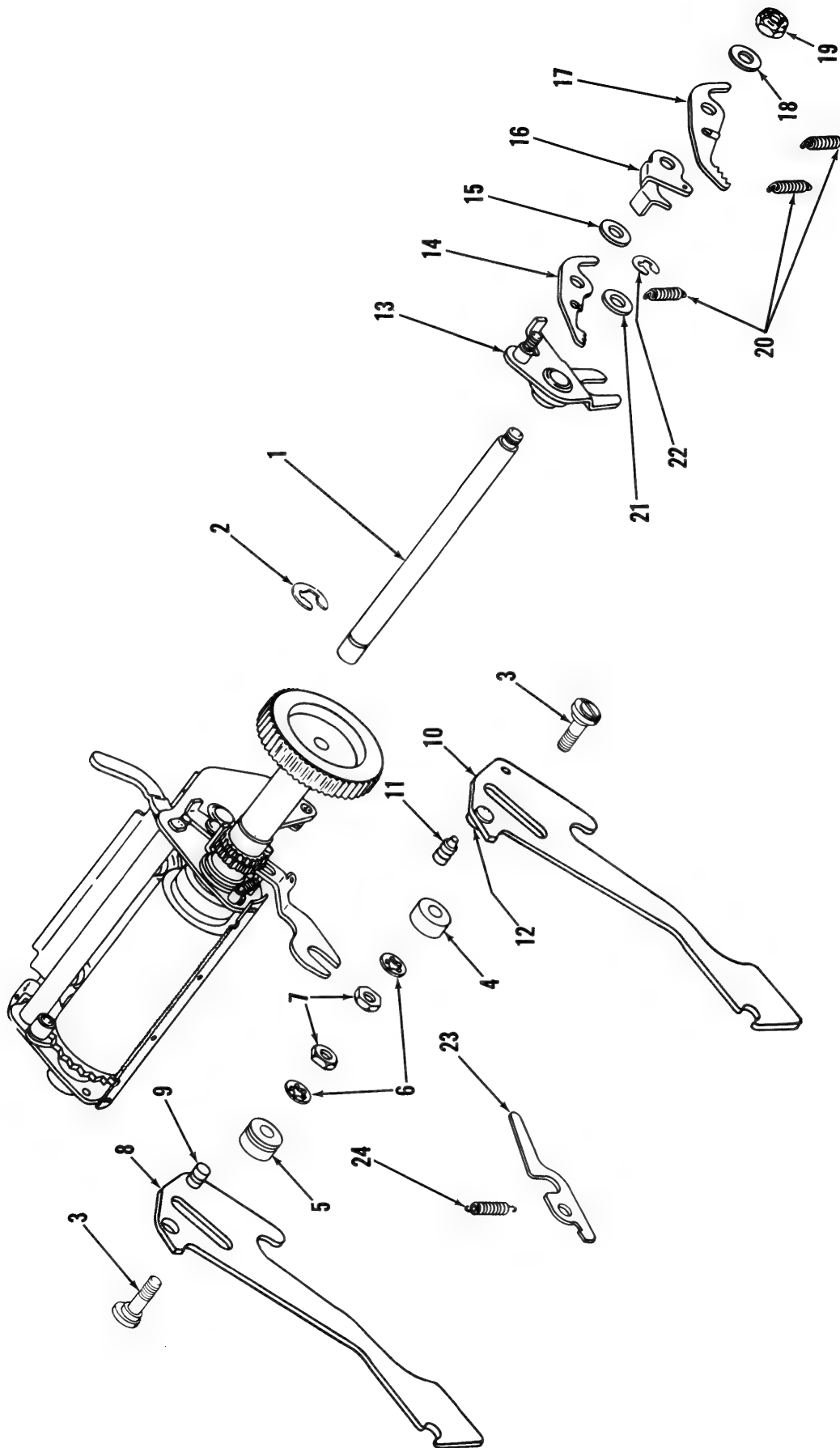


FIGURE 44

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
44- 1	8423									1
44- 2	7020									1
44- 3	8053									2
44- 4	8054									1
44- 5	8055									1
44- 6	1498 $\frac{1}{2}$									2
44- 7	4798									2
44	1-12580									1
44- 8	12254									1
44- 9	12828									1
44	1-12255									1
44-10	12254									1
44-11	7993									1
44-12	8224									1
44	1-12604									1
44-13	1-6488									1
44-14	12614									1
44-15	1268 $\frac{1}{2}$									1
44-16	4599									1
44-17	4781									1
44-18	7367									1
44-19	6489									1
44-20	3077									3
44-21	S-966									AR
44-21	S-282 $\frac{1}{2}$									AR
44-21	11242									AR
44-21	5617									AR
44-21	7367									AR
44-21	7519									AR
44-21	F-1853									AR
44-21	2966									AR
44-22	7019									1
44-23	12849									1
44-24	689									1

(These 8 Spacers are used to
adjust the Carriage laterally in
relation to the Type Sectors)

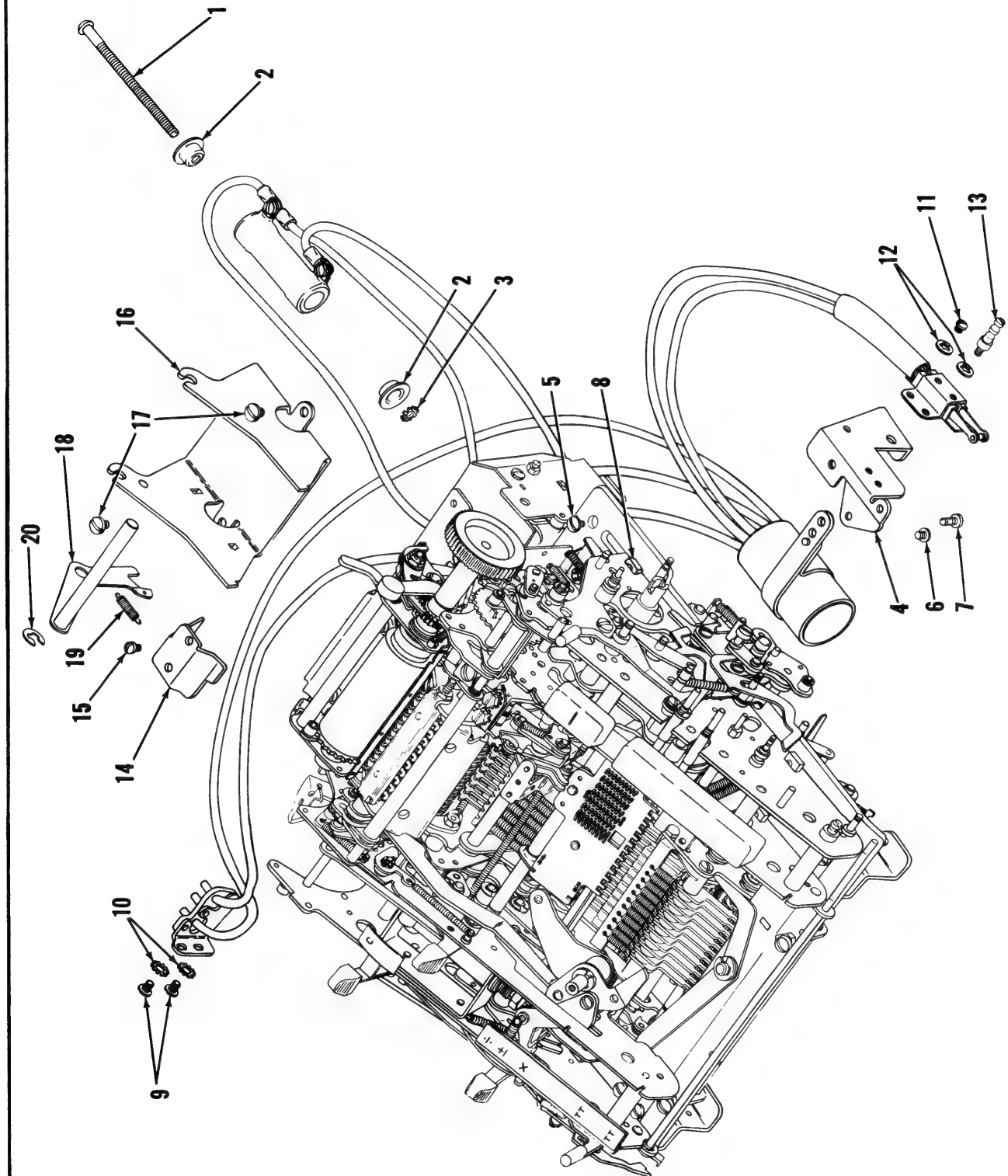


FIGURE 45

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
45- 1	2453	Screw - Round Head (2.750")								1
45- 2	2837	Cap - Resistor								2
45- 3	1498 $\frac{1}{4}$	Washer - External Tooth Lock								1
45- 4	9429	Bracket - Switch								1
45- 5	7	Screw - Binding Head (.187")								1
45- 6	1267	Screw - Binding Head (.156")								1
45- 7	6663	Screw - Binding Head (.375")								1
45- 8	5937	Nut - Special								1
45- 9	1267	Screw - Binding Head (.156")								2
45-10	2509	Washer - External Tooth Lock								2
45-11	1267	Screw - Binding Head (.156")								1
45-12	1498 $\frac{1}{2}$	Washer - Internal Tooth Lock								2
45-13	12473	Stud - Screw (Shoulder Spring)								1
45-14	7243	Cover - Gear Box Dust								1
45-15	3781	Screw - Binding Head (.155")								1
45-16	1-15938	Bracket - Paper								1
45-17	813A	Screw - Binding Head (.125")								2
45-18	1-15940	Arm - Paper Advancing								1
45-19	245	Spring (.625", .012" Wire)								1
45-20	7020	Keeper - Spring (.250")								1

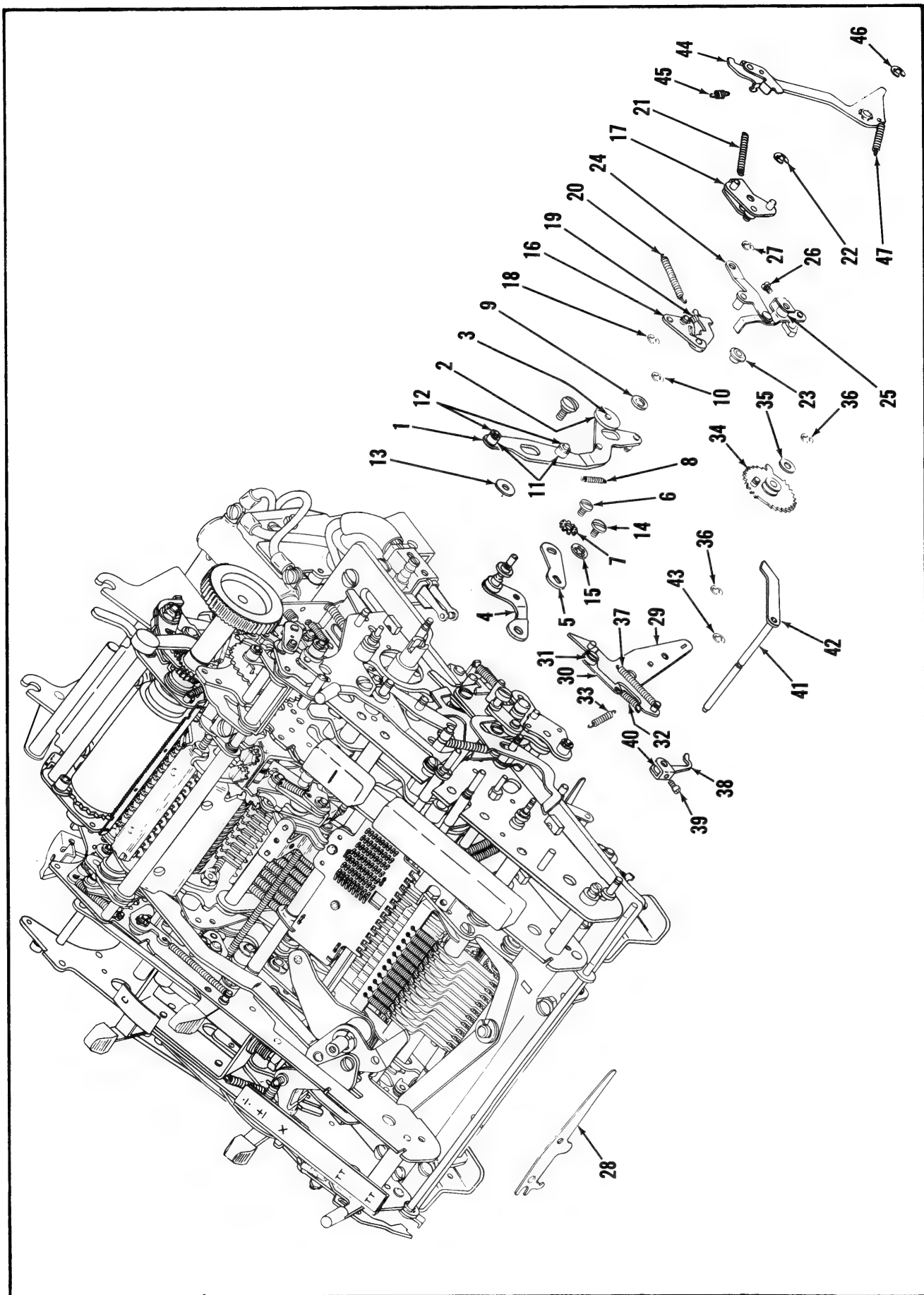


FIGURE 46

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
46	1-12712				Arm & Link Assembly - Motor Contact					1
46- 1	1-12594				Link Assembly - Motor Contact					1
46- 2	8327				Disc - Motor Contact					1
46- 3	1487-E				Screw - Binding Head (.115")					1
46- 4	1-12711				Arm Assembly - Operating Shaft					1
46- 5	12709				Arm - Operating Shaft (Right)					1
46- 6	3632				Screw - Binding Head (.187")					1
46- 7	13231				Washer - External Tooth Lock					1
46- 8	12462				Spring (.340", .020" Wire)					1
46- 9	3731				Spacer - Flat (.025")					1
46-10	7017				Keeper - Spring (.125")					1
46-11	3813				Roller (.2188")					2
46-11	3108				Roller (.1875")					AR
46-11	8609				Roller (.203")					AR
46-11	3883				Roller (.229")					AR
46-11	3885				Roller (.250")					AR
46-11	3786				Roller (.270")					AR
46-12	7017				Keeper - Spring (.125")					2
46-13	8756				Spacer - Flat (.060")					1
46-14	1243 $\frac{1}{2}$				Screw - Binding Head (.115")					1
46-15	4227				Washer - Internal Tooth Lock					1
46	1-12666				Latch & Link Assembly - Motor Contact Pivot					1
46-16	1-12478				Latch Assembly Complete - Motor Contact					1
46-17	1-12584				Pivot Assembly - Motor Contact Latch Link					1
46-18	7017				Keeper - Spring (.125")					1
46-19	3664				Spring (.281", .011" Wire)					1
46-20	9118				Spring (.572", .011" Wire)					1
46-21	4734				Spring (.459", .010" Wire)					1 2
46-22	7018				Keeper - Spring (.156")					1
46-23	12815				Spacer - Shoulder					1
46-24	1-12897				Arm & Link Assembly Complete - Auto-Total & Sub-Total Cam Pivot					1
46-25	3786				Roller (.270")					1
46-26	12447				Screw - Auto-Total Drive Link					1
46-27	7017				Keeper - Spring (.125")					1
46-28	12217				Arm - Index Stop Reset					1
46-29	1-12994				Release Assembly - Stop Key Plus Key Latch					1
46-30	13288 *				Pawl - Stop Ratchet Detent Auto-Division					1
46-31	13289 *				Stud - Eccentric - Stop Ratchet Detent Pawl					1
46-32	4952				Spring (.219", .008" Wire)					1
46-33	M-289				Spring (.406", .012" Wire)					1
46-34	1-12969				Ratchet Assembly - Auto-Division Stop					1
46-35	1420 $\frac{1}{2}$				Spacer - Flat (.008")					1
46-36	7017				Keeper - Spring (.125")					2
46-37	427				Spring (.687", .011" Wire)					1
46-38	12840				Arm - Calculating Stop Release Cradle					1
46-39	12447				Screw - Auto-Total Drive Link					1
46-40	3883				Roller (.229")					1
46	1-12843				Lever Assembly - Calculating Stop Release Cradle Cam					1
46-41	12842 *				Shaft - Calculating Stop Release Cradle Arm					1
46-42	12841 *				Lever - Calculating Stop Release Cradle Arm					1
46-43	7017				Keeper - Spring (.125")					1
46	1-9216				Lever & Yield Arm Assembly Complete - Total & Non-Add Lock					1
46-44	1-9215				Lever & Yield Arm Assembly - Total & Non-Add Lock					1
46-45	9214				Spring (.160", .020" Wire)					1
46-46	7018				Keeper - Spring (.156") (Adj. 13039, 9233 Keepers & 5158 (.008"),					1
46-47	2483				Spring (.422", .010" Wire) 9229 (.005") or S-288 $\frac{1}{2}$ (.010") Spacers)					1

* This part, or assembly, is not individually replaceable in this location. Order the next higher part or assembly that is replaceable.

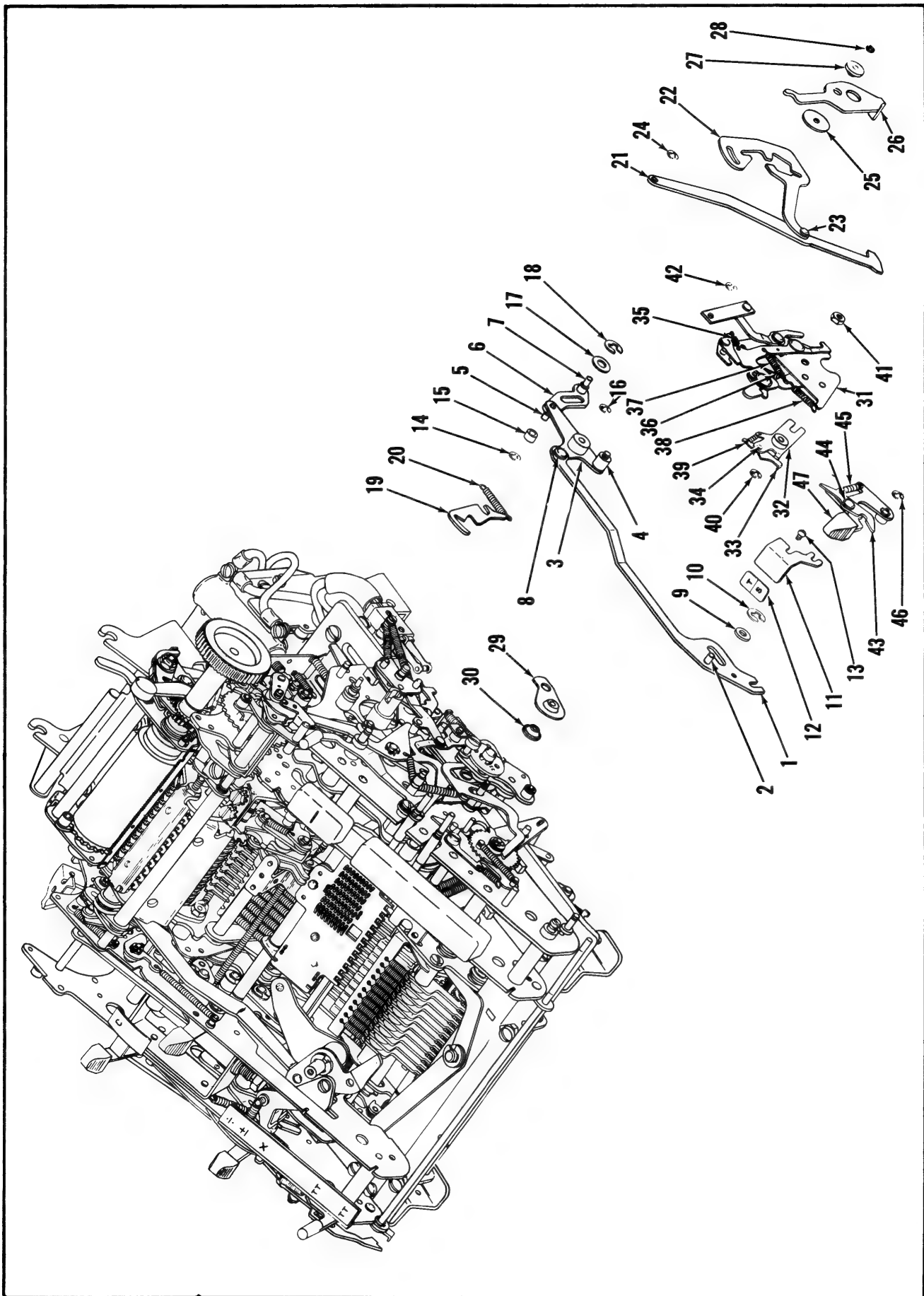
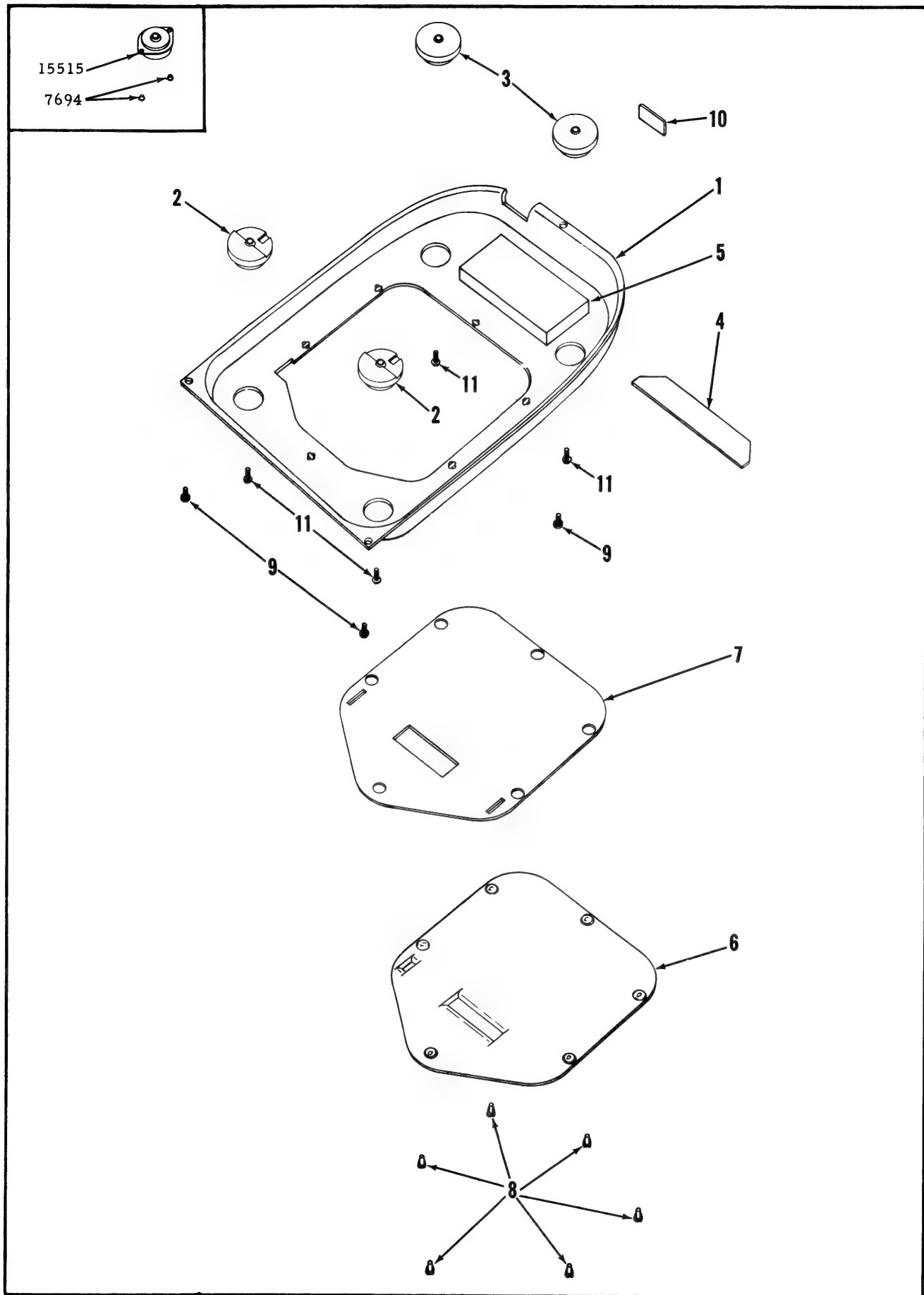


FIGURE 47

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

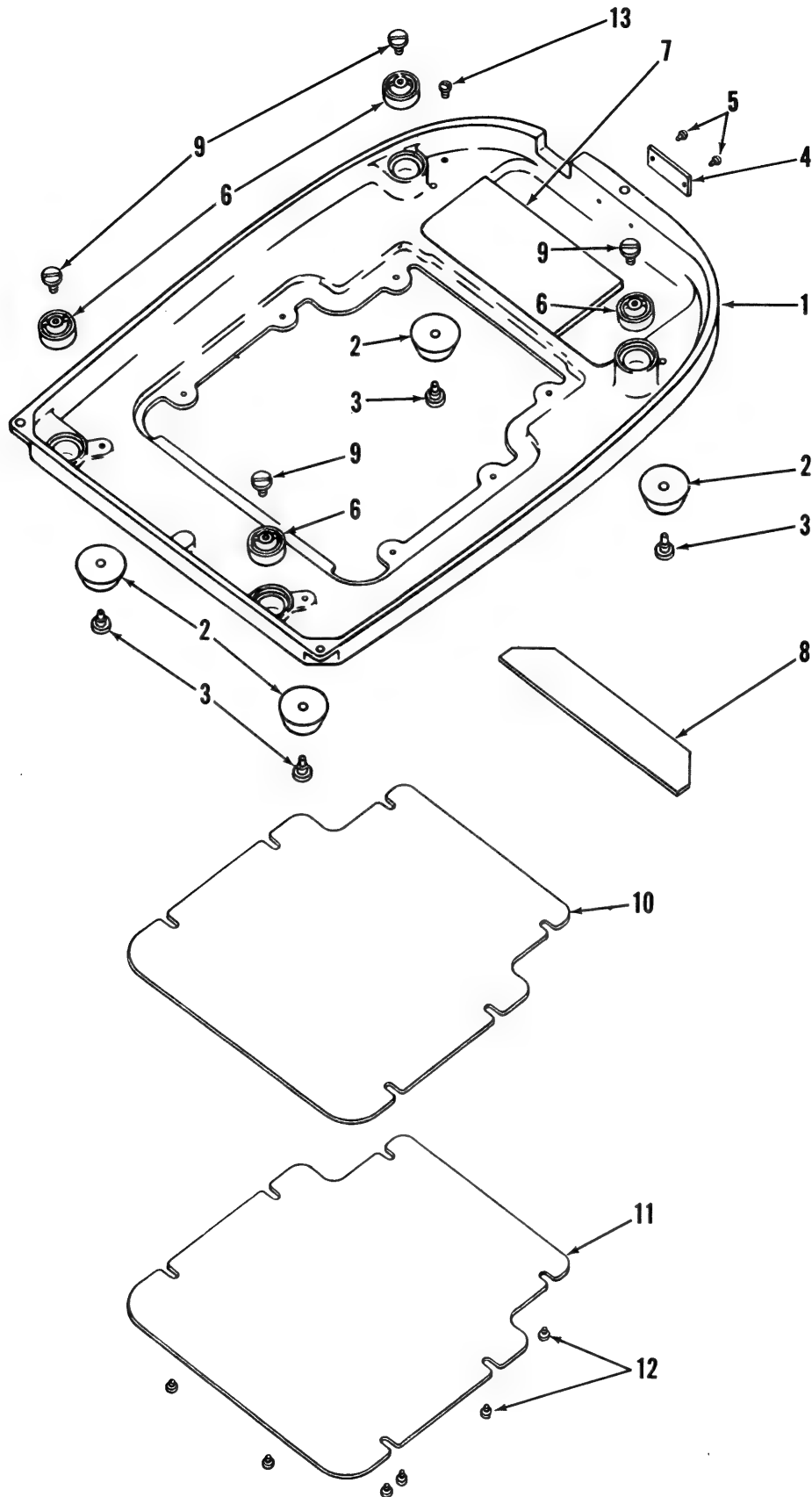
Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
47 A	1-13002									1
47- 1	12996									1
47- 2	8180									1
47- 3 B	1-9156									1
47- 4	13001									1
47- 5	9170									1
47- 6	12288									1
47- 7	8938									1
47- 8	7883									1
47- 9	5617									1
47-10	7019									1
47-11 C	1-13339									1
47-12 C	13338									1
47-13	F-769 $\frac{1}{2}$									1
47-14	12575									1
47-15	9172									1
47-16	9233									1
47-17	3925									1
47-18	7019									1
47-19 D	9173									1
47-20	M-789									1
47 E	1-9266									1
47-21	9265									1
47-22	12291									1
47-23	3588									1
47-24	7017									1
47-25	12404									1
47-26	12292									1
47-27	12394									1
47-28	13595									1
47-29	12088									1
47-30	12829									1
47 F	1-12989									1
47-31	1-12988									1
47-32	1-13006									1
47-33	13004									1
47-34	3588									1
47-35	12491									1
47-36	5511									1
47-37	6535									1
(Continued on following page)										
A - Order #12444 Total Selector Link for Multiplier Models below serial #1301-619.										
B - Order #1-12471 Total Selector Rocker Assembly Complete for Multiplier Models below serial #1301-619.										
C - Order #1-13020 Identification Slide and #13021 Adhesive Name Plate for machines below serial #1532-929.										
D - Order #12286 Total Selection Rocker Detent for Multiplier Models below serial #1301-619.										
E - Total Selector Assembly #1-9266 can only be used in conjunction with #1-13073 Auto-Total Control Shaft Assembly. Refer to Figure 26.										
F - Order #1-13129 Auto-Total Control Lever Guide Plate Assembly Complete for Multiplier Models.										



Section II

Group Assembly Parts List

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CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly	
		1	2	3	4	5	6	7	8		
48A	1-13357									Support Assembly - Base (Brown) (#1-12652, Green)	1
48A- 1	13356									Support - Base	1
48A- 2	12618									Foot - Rubber	4
48A- 3	12617									Rivet - Shoulder	4
48A- 4	6996									Plate - Volts & Cycles (115 Volts)	1
48A- 5	8514									Screw - Round Head (.125")	2
48A- 6	8800									Mount - Rubber	4
48A- 7	12777									Pad - Felt	1
48A- 8	6964									Pad - Bumper	1
48A- 9	7097									Screw - Binding Head (.218")	4
48A-10	12615									Felt - Base Support	1
48A-11	12616 §									Cover - Base Support	1
48A-12	3632									Screw - Binding Head (.187")	6
48A-13	3781									Screw - Binding Head (.115")	1
§ The base support cover carries the machine serial number; consequently, the old base support cover must be returned to the factory with the order for a new one.											

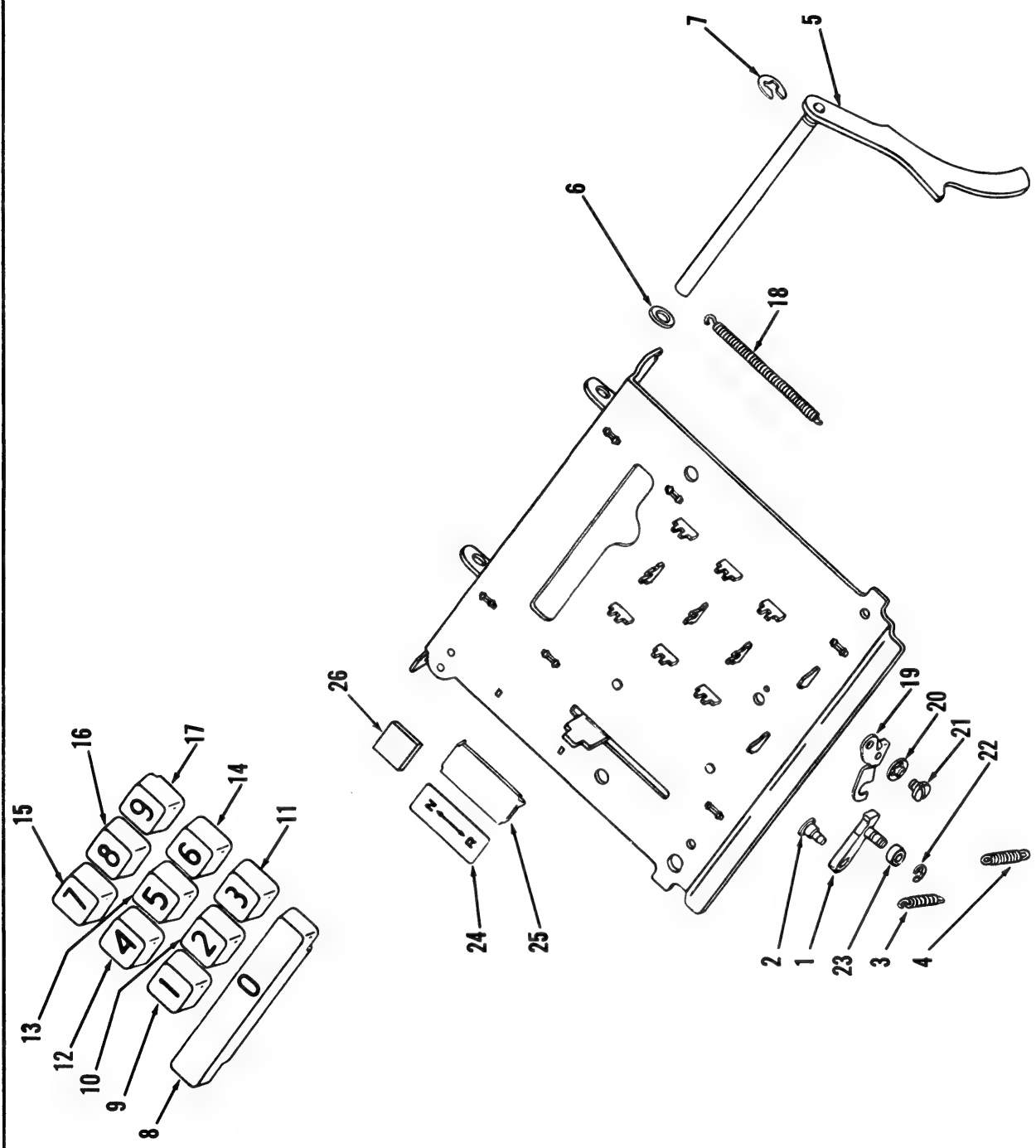


FIGURE 49

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
49 A	1-13389	Keyboard Assembly Complete (Brown Buttons) (#1-12456 Green Buttons)								1
49- 1	1-9529	Pawl Assembly - Escapement								1
49- 2	9517	Rivet - Shoulder								1
49- 3	2483	Spring (.375", .008" Wire)								1
49- 4	481	Spring (.406", .012" Wire)								1
49- 5	1-8869	Lock Assembly - Keyboard								1
49- 6	S-966	Spacer - Flat (.0485")								1
49- 7	7019	Keeper - Spring (.1875")								1
49- 8	13345	Button - Key (Brown "O") (#8240 Green "O")								1
49- 9	16761	Button - Key (Brown "1") (#8241 Green "1")								1
49-10	16762	Button - Key (Brown "2") (#8242 Green "2")								1
49-11	16763	Button - Key (Brown "3") (#8243 Green "3")								1
49-12	16764	Button - Key (Brown "4") (#8244 Green "4")								1
49-13	16765	Button - Key (Brown "5") (#8245 Green "5")								1
49-14	16766	Button - Key (Brown "6") (#8246 Green "6")								1
49-15	16767	Button - Key (Brown "7") (#8247 Green "7")								1
49-16	16768	Button - Key (Brown "8") (#8248 Green "8")								1
49-17	16769	Button - Key (Brown "9") (#8249 Green "9")								1
49-18	4368	Spring (1.625", .008" Wire)								1
49-19	9477	Arm - Escapement								1
49-20	2509	Lock Washer								1
49-21	12640	Screw								1
49-22	13078	Keeper - Spring								1
49-23	7622	Roller								1
49-24	13323	Name Plate - Repeat Non-Add								1
49-25	13318	Bracket - Repeat Non-Add								1
49-26	13620	Cushion - Keyboard								1
A - For machines between serial #1532-929 and #1772-681, order #1-13331 Keyboard Assembly.										

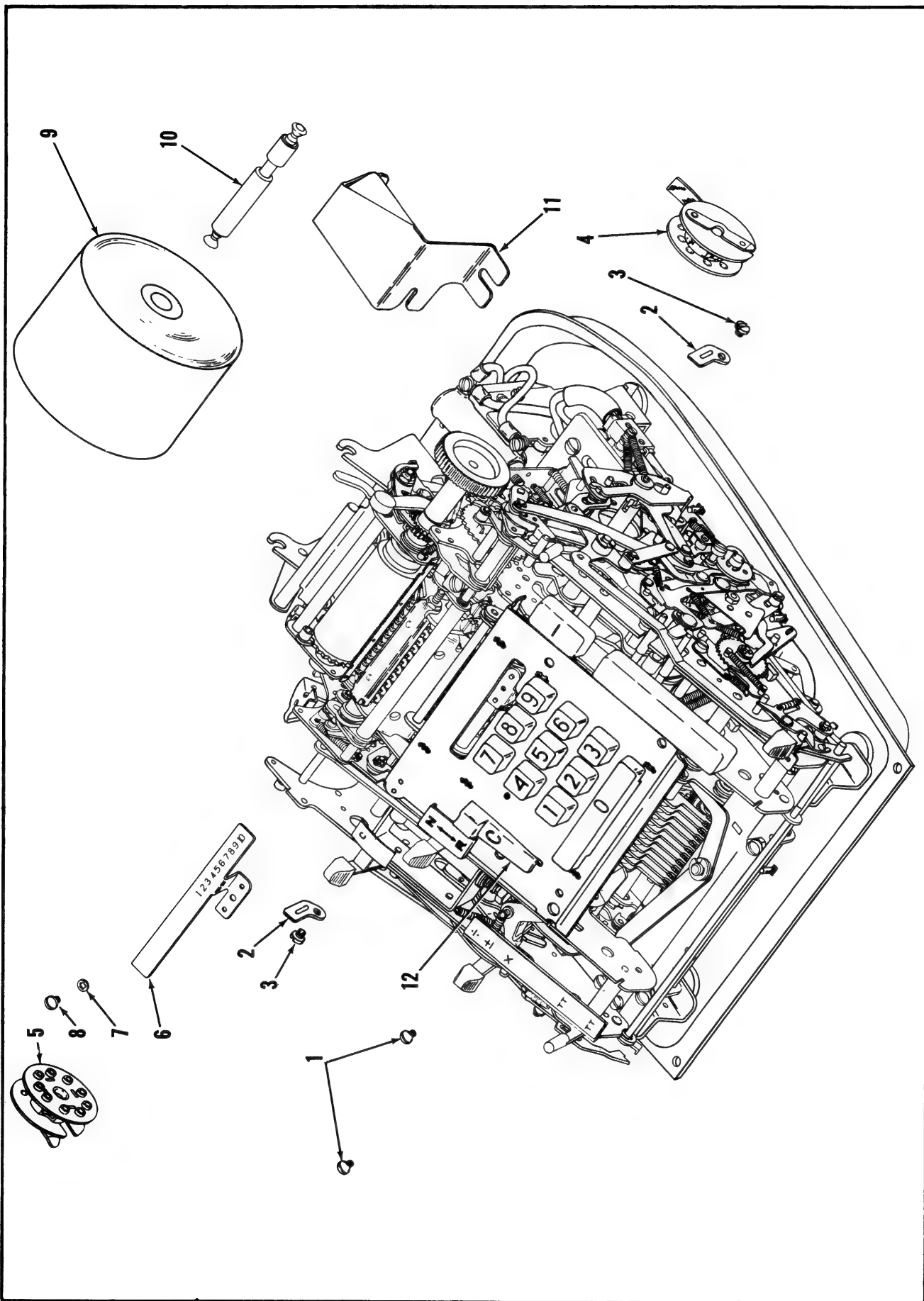


FIGURE 50

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
50- 1	3632									2
50- 2	8779									2
50- 3	3781									2
50- 4	1-5988 §									1
50- 5	1-5987									2
50- 6	1-16814									1
50- 7	1498 ½									1
50- 8	1243 ½									1
50- 9	792									1
50-10	1-6898									1
50-11	13036									1
50-12	13346									1
<p style="text-align: center;">N O T E:</p> <p>§ For service requirements only, use #1-4176. #1-4176 is one dozen individually boxed ribbon assemblies packed in a carton; each ribbon assembly consisting of one spool wound with ribbon.</p>										

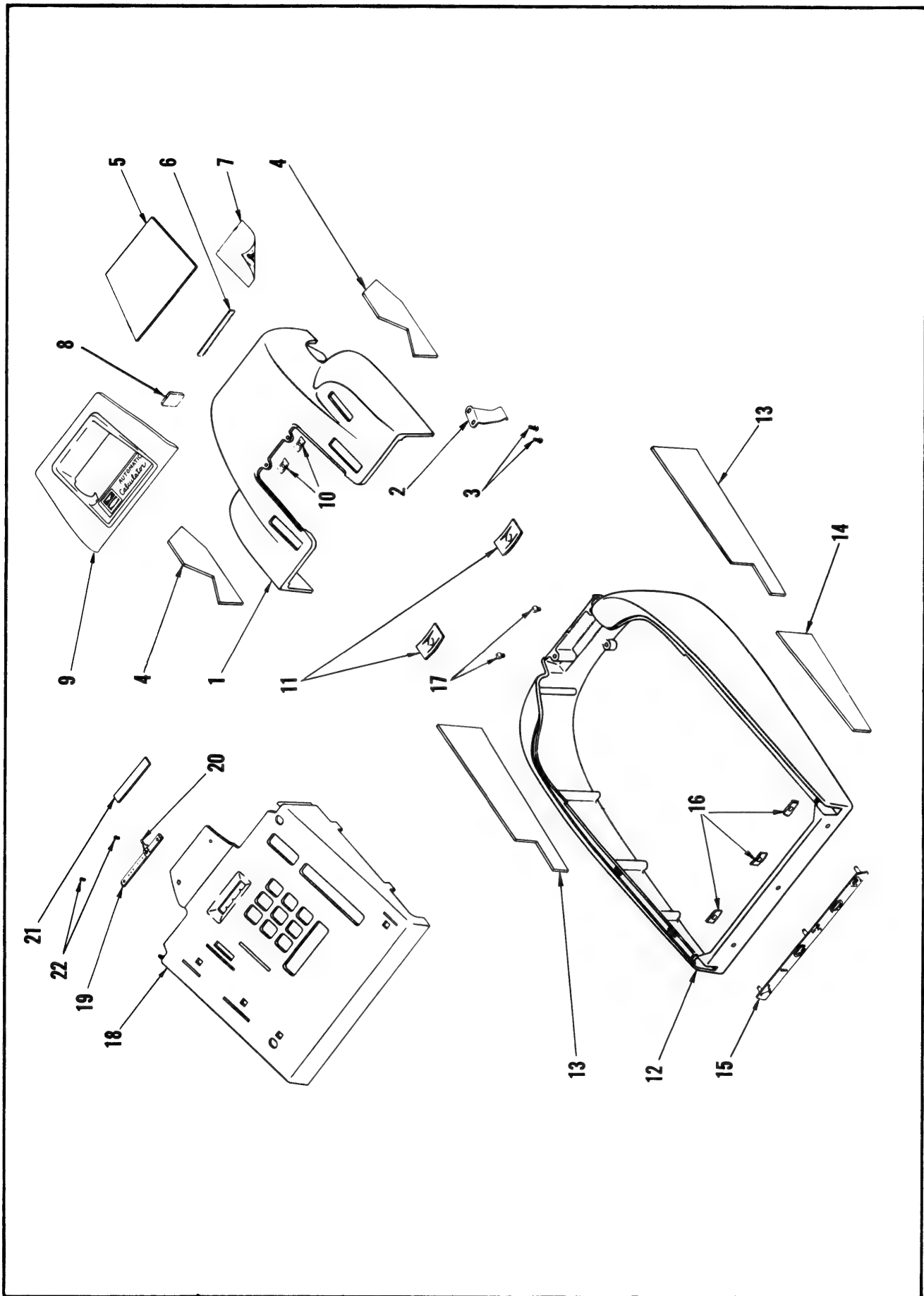


FIGURE 51

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
51 A	1-13390-1									1
51	1-6286									1
51- 1	1-13617									1
51- 2	8543									1
51- 3	8547									2
51- 4	8789									2
51- 5	8790									1
51- 6	16806									1
51- 7	7805									1
51- 8	16680									1
51- 9	13317									1
51-10	14048									2
51-11	13319									2
51	1-6287									1
51-12	13300									1
51-13	8791									2
51-14	12695									1
51-15	13322									1
51-16	14048									3
51-17	13619									3
51-18 B	13391									2
51-19	13343									1
51-20	13344									1
51-21	8781									1
51-22	9499									2
51-23	8838 ‡									1
51-24	13372 ‡									1
<p>A - For machines above serial #1772-681, order the following Cases. Model 75-85-54 Case #1-13390-1; Model 74-85-54 Case #1-13390-2; Model 73-85-54 Case #1-13390-4; Model 72-85-54 Case #1-13390-3.</p> <p>For machines between serial #1532-929 and #1772-681, order the following Cases. Model 75-85-54 Case #1-13332; Model 74-85-54 Case #1-13333; Model 73-85-54 Case #1-13335; Model 72-85-54 Case #1-13334.</p> <p>For machines below serial #1532-929, refer to Figure 48A.</p> <p>B - For machines above serial #1772-681 order the following Keyboard Covers. Model 75-85-54 Cover #13391; Model 74-85-54 Cover #13392; Model 72-85-54 Cover #13393; Model 73-85-54 #13394.</p> <p>For machines between serial #1532-929 and #1772-681 order the following Keyboard Covers. Model 75-85-54 Cover #13313; Model 74-85-54 Cover #13314; Model 72-85-54 Cover #13315; Model 73-85-54 Cover #13316.</p>										
‡ Not illustrated										

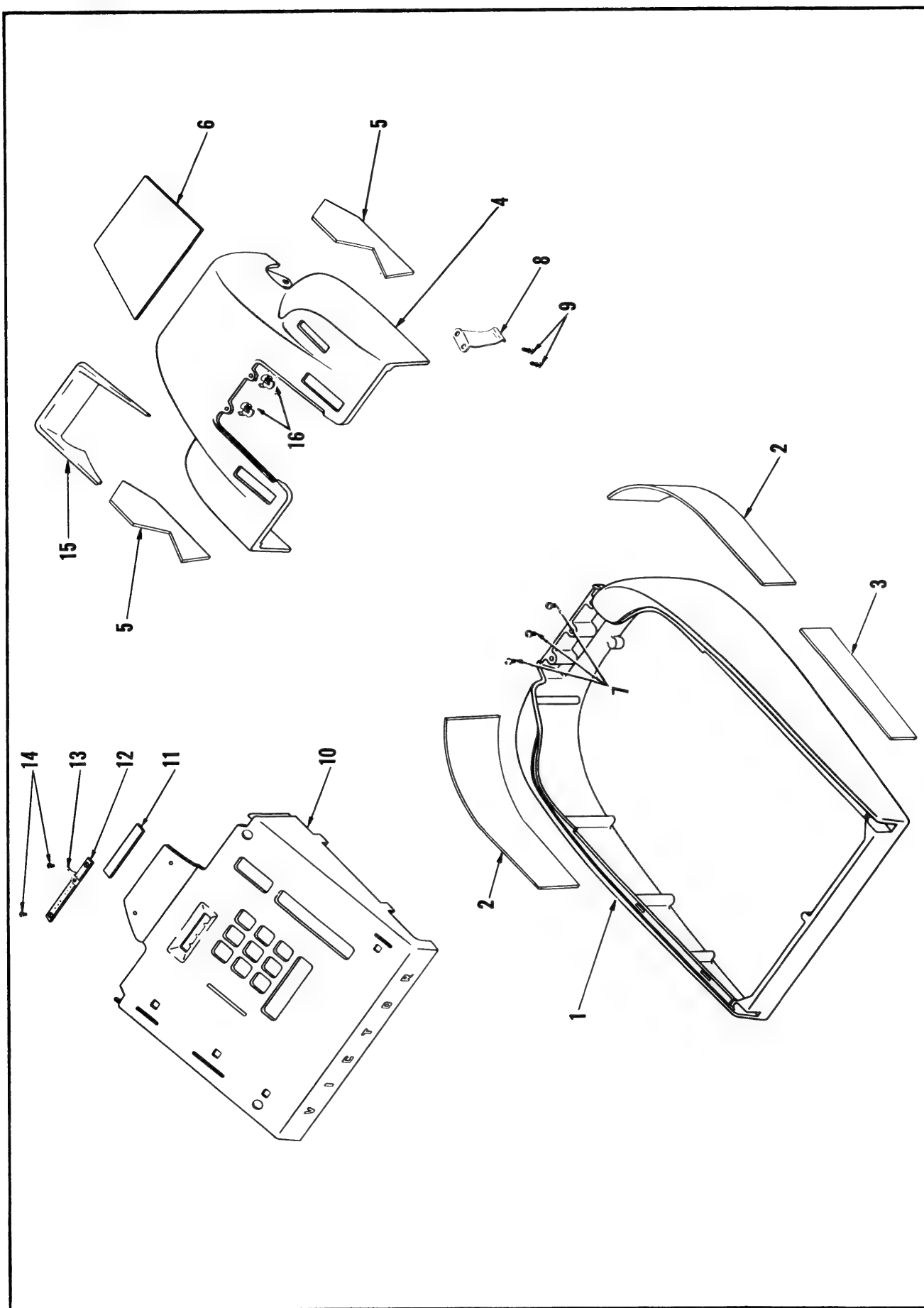


FIGURE 51A

CUSTOM LINE
PRINTING CALCULATORS

Section II
Group Assembly Parts List

Figure and Index	Part Number	Part Name								No. Req. per Assembly
		1	2	3	4	5	6	7	8	
51A A	1-12676								Case Assembly Complete (Green)	1
51A B	1-6210								Case Sub-Assembly Complete (Green)	1
51A- 1	1-12674 *								Case Sub-Assembly	1
51A- 2	8791								Pad - Case (Rear)	2
51A- 3	12695								Pad - Case	1
51A	1-6203								Hood Assembly Complete (Green)	1
51A- 4	1-9314 *								Hood Assembly (Green)	1
51A- 5	8789								Pad - Hood (Side)	2
51A- 6	8790								Pad - Hood (Top)	1
51A- 7	12730								Screw - Binding Head (.250")	3
51A- 8	8543								Snap - Hood (Right)	1
51A- 9	8547								Screw - Round Head (.250")	2
51A-10C	13152								Cover - Keyboard (Tan)	1
51A-11	8781								Cushion - Keyboard	1
51A-12	8598								Guide - Decimal Indicator	1
51A-13	8597								Slide - Decimal Indicator	1
51A-14	8599								Screw - Oval Head (.187")	2
51A-15	8567								Escutcheon	1
51A-16D	7744								Nut - Speed	2
<p>A - Order #1-12755 Case Assembly Complete for Multiplier Models below serial #1301-619.</p> <p>B - When ordering #1-6210 Case Sub-Assembly Complete, please specify with or without hinges. Shoulder Screw #8541, Spring Washer #6899, Flat Spacers #3749 and #8533, and Hex Nut #S-963 were formerly used as attaching parts between the hood and Case Sub-Assembly.</p> <p>C - For machines between serial #1419-000 and #1532-929 order the following Keyboard Covers. Model 75-85-54 Cover #13152; Model 74-85-54 Cover #13164; Model 73-85-54 Cover #13206; Model 72-85-54 Cover #13205.</p> <p>For machines below serial #1419-000 order Keyboard Cover #13000 for Model 75-85-54 and Cover #13126 for Model 74-85-54.</p> <p>When ordering #13000 Keyboard Cover, specify with or without opening for Calculating Unit Indicator #1-13032.</p> <p>Order #1-12754 Keyboard Cover for Multiplier Models below serial #1301-619.</p> <p>D - Binding Head Screw #3310 was formerly used to secure the Escutcheon to the Hood.</p>										
<p>* This part, or assembly, is not individually replaceable in this location. Order the next highest assembly that is replaceable.</p>										

Section III
Numerical Parts Index

CUSTOM LINE
PRINTING CALCULATOR

Part Number	Figure and Index	Part Number	Figure and Index	Part Number	Figure and Index	Part Number	Figure and Index
7	19-28 23-43 45-5	481	23-39 26-2 36-28 37-15 49-4	S-966	8-11 14-4 44-21 49-6	1487-E	46-3
S-45 $\frac{1}{2}$	23-17					1498 $\frac{1}{4}$	45-3
F3-82	17-26 35-15	538A	17-7	S-982	11-31	1498 $\frac{1}{2}$	5-6 44-6 45-12 50-7
90	27-15 28-15	585	10-22 17-36	S-989	14-8		
92	19-16	587	37-31	F-1143 $\frac{1}{4}$	16-18	1499 $\frac{1}{4}$	19-34 23-18
157	34-14 43-29 47-38	641 $\frac{1}{2}$	43-5	1182	21-4		
		S-681 $\frac{1}{2}$	16-5 20-15	1243 $\frac{1}{2}$	24-21 34-13 46-14 50-8	F-1832 $\frac{1}{2}$	21-26 24-45 26-31 35-16
237	17-4	689	34-14 35-27 43-28 44-24	1267	18-13 45-6 45-9 45-11	F-1846 $\frac{1}{2}$	8-16
245	12-7 35-33 45-19					F-1853	
		F-769 $\frac{1}{2}$	5-22 26-30 47-13	1268 $\frac{1}{2}$	13-10 18-32 26-14 37-29 44-15	1918 $\frac{1}{2}$	26-14
253	26-16					2101 $\frac{1}{4}$	5-7 19-23
255	18-11 23-15	F-781 $\frac{1}{2}$	2-9 4-21			2113	16-36
S-282 $\frac{1}{2}$	21-26 21-44 22-8 26-14 27-17 28-14 37-29 44-21	M-789	16-29 17-40 30-11 47-20	1278 $\frac{1}{2}$	10-21	2115 $\frac{3}{4}$	23-42
		792	50-9	1281	19-32	2229	10-8
S-288 $\frac{1}{2}$	12-2 21-32 46-47	813A	45-17	1290 $\frac{1}{4}$	17-33 21-40 22-8 26-14 27-17 28-14 35-13 37-29	2267	39-1
		S-853 $\frac{1}{2}$	23-19			2362 $\frac{1}{2}$	1-11 16-13
M-289	1-21 8-6 21-24 23-38 36-15 46-33	S-856 $\frac{1}{2}$	9-37	1291-1	15-9	2363 $\frac{1}{2}$	10-6 43-4
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12928	11-26	13004	47-33	13054	22-5	1-13124	35-28
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12940	28-6	13012	20-9	13063	18-36	1-13139-1	1
12941	28-4	13013	37-5	1-13068	13-9	13142	29-6
12944	20-19	13017	35-20	1-13069	13-9	13144	29-4
1-12945	20-18	1-13018	35-19	1-13071	14-1	1-13145	29
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13205	51A-10	1-13276	24	1-13329	11	13371	17-2
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13209	18-7	1-13278	18-10	1-13331	49	13373	5-3
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1-17020	6	1-25339	27-8	1-25476	28-3		
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